SERVICE MANUAL

FISHER

DIGITAL COMPACT DISC CHANGER

DAC-9060

(EUROPE)

137 349 41

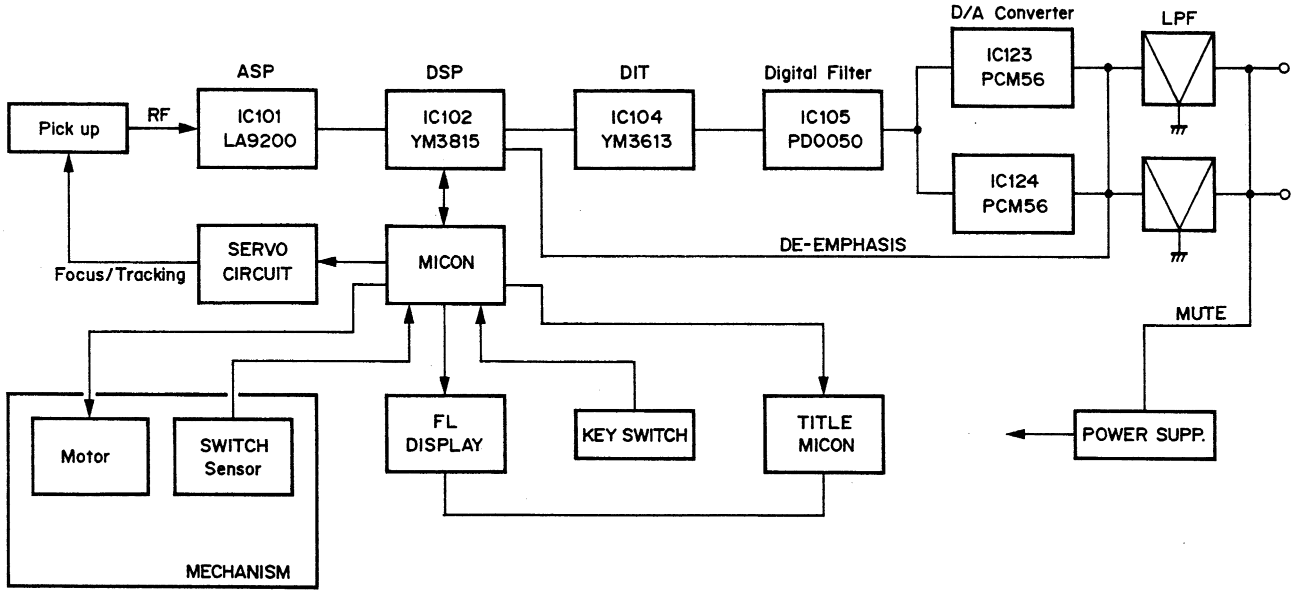
SPECIFICATIONS

System	Compact disc digital audio
AUDIO CHARACTERISTICS	
Frequency Response	20 Hz ~ 20 kHz ±0.5 dB
Harmonic Distortion (20 kHz Low Pass Filter)	Less than 0.005 % (1 kHz)
Dynamic Range	More than 92 dB
S/N Ratio	More than 100 dB
Wow and Flutter	Below measurable limits
Channel Separation	More than 95 dB (1 kHz)
Output Voltage (maximum)	2 Vrms
FUNCTIONS	
Disc Selection	With DISC NUMBER buttons (1 ~ 5)
Track Selection	With FFWD and FBACK buttons or remote control's numbered buttons (0 ~ 9)
Index Selection	With SCAN/INDEX ▶| and |◀ buttons (normal play only)
Program Selection	With DISC NUMBER buttons (1 ~ 5), FFWD and FBACK buttons, or remote control's numbered buttons (0 ~ 9)
Scanning (fast forward/fast back)	2-speed search with sound
Each/Remain/Total Time Display	With DISPLAY button during the PLAY mode
Program Memory	32 selections
Introscan Play	10 seconds/track or 1 ~ 58 seconds, programmable with remote control's numbered buttons (0 ~ 9)
Random Play	With the RANDOM PLAY button during the PLAY mode
Repeat Play	One track/all tracks/all programmed tracks
Program Reset	With CLEAR button
Checking Program	With CHECK button (in STOP mode)
Pause	Each track
Disc Loading	Motor-driven, horizontal loading
DIGITAL SIGNAL PROCESSING	
Optical Pickup	3-beam laser
Sampling Frequency	44.1 kHz
Filters	18-bit, 8 times oversampling digital filter 2-pole active filter
D/A Conversion	Two 16-bit, linear, D/A converters
GENERAL	
Power Requirements (50 Hz)	AC 220V 25 Watts
Dimensions (W x H x D)	440 x 150 x 320mm
Weight (approximate)	6.7kg

– Specifications and design are subject to change without notice. –

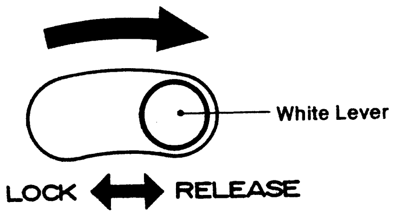
REFERENCE No. WM-570352

FUNCTIONAL BLOCK DIAGRAM


D/A Converter
LPF
ASP
DSP
DIT
Digital Filter
IC123
PCM56
Pick up
RF
IC101
LA9200
IC102
YM3815
IC104
YM3613
IC105
PD0050
IC124
PCM56
SERVO
CIRCUIT
MICON
DE-EMPHASIS
Focus/Tracking
MUTE
Motor
SWITCH
Sensor
FL
DISPLAY
KEY SWITCH
TITLE
MICON
POWER SUPP.
MECHANISM

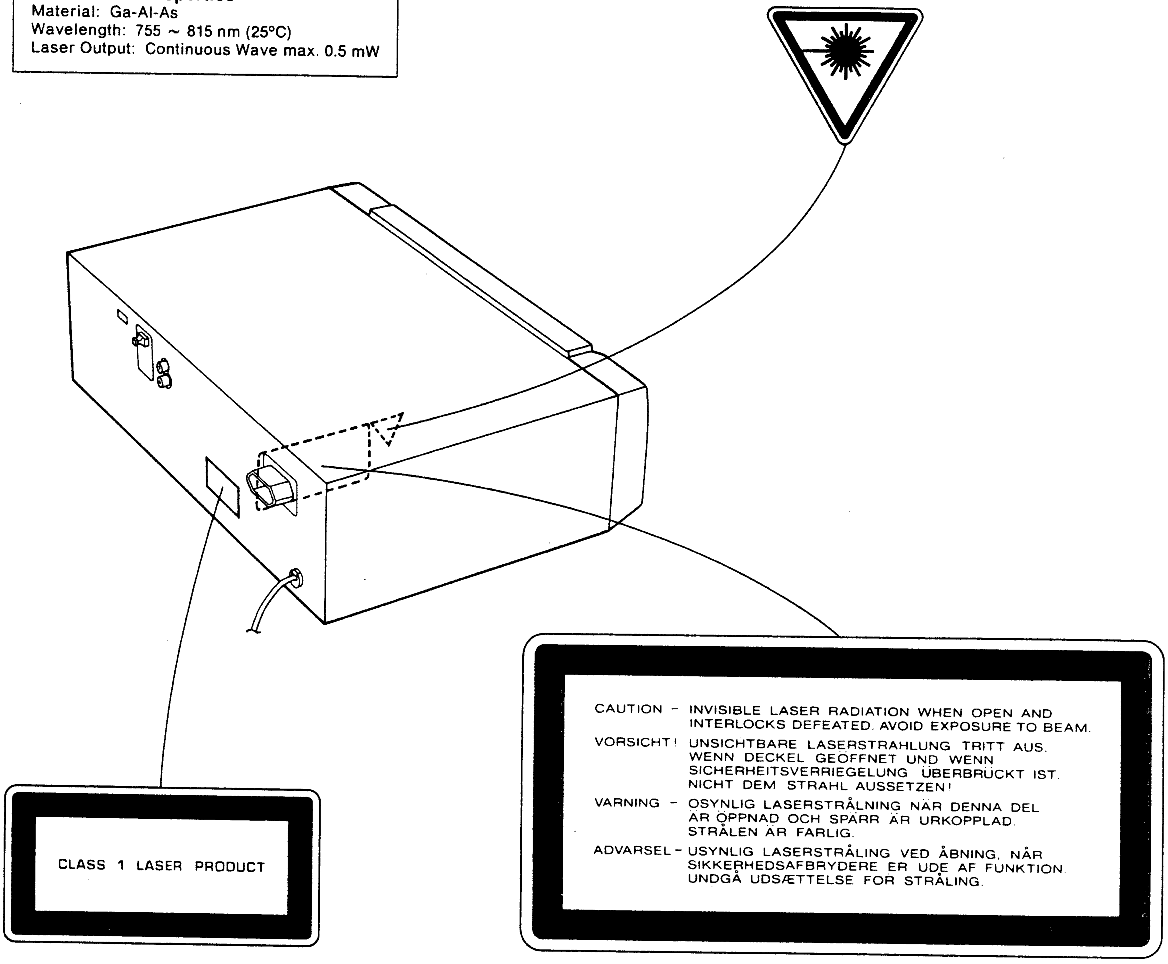
BEFORE USE

To protect the internal laser pickup mechanism from shocks and movement during transport, it has been secured by the white lever, located in the bottom panel of the CD changer.
Slide this lever all the way to RELEASE, before the unit is switched on.


White Lever
LOCK
RELEASE

SAFETY CERTIFICATION

Laser Diode Properties
Material: Ga-Al-As
Wavelength: 755 ~ 815 nm (25°C)
Laser Output: Continuous Wave max. 0.5 mW



CLASS 1 LASER PRODUCT

CAUTION – INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.

VORSICHT! UNSICHTBARE LASERSTRAHLUNG TRITT AUS. WENN DECKEL GEÖFFNET UND WENN SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT IST. NICHT DEM STRAHL AUSSETZEN!

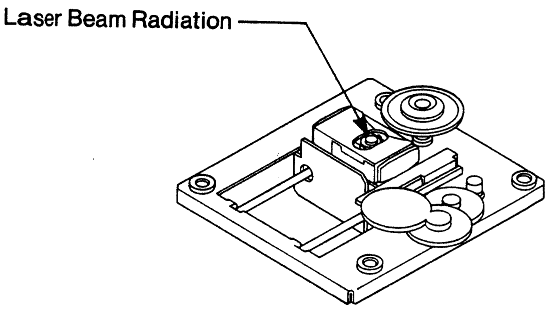
VARNING – OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRÅLEN ÄR FARLIG.

ADVARSEL – USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.

CAUTION – USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

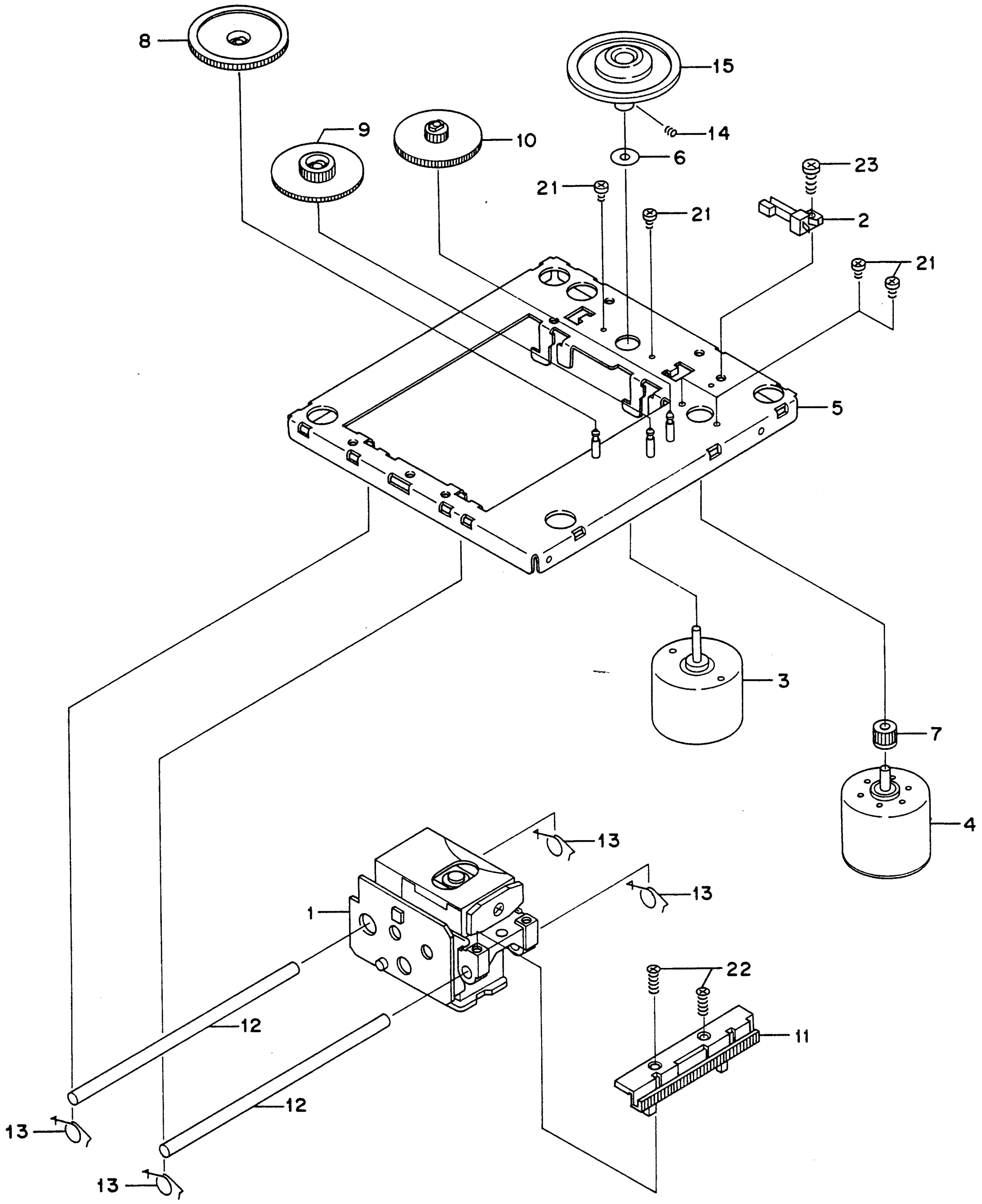
THE COMPACT DISC PLAYER SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT QUALIFIED SERVICE PERSONNEL.

LASER BEAM RADIATION SPOT



Laser Diode Properties
Material: Ga-Al-As
Wavelength: 755 – 815 nm (25°C)
Laser Output: Continuous Wave max.0.5 mW

CD MECHANISM EXPLODED VIEW



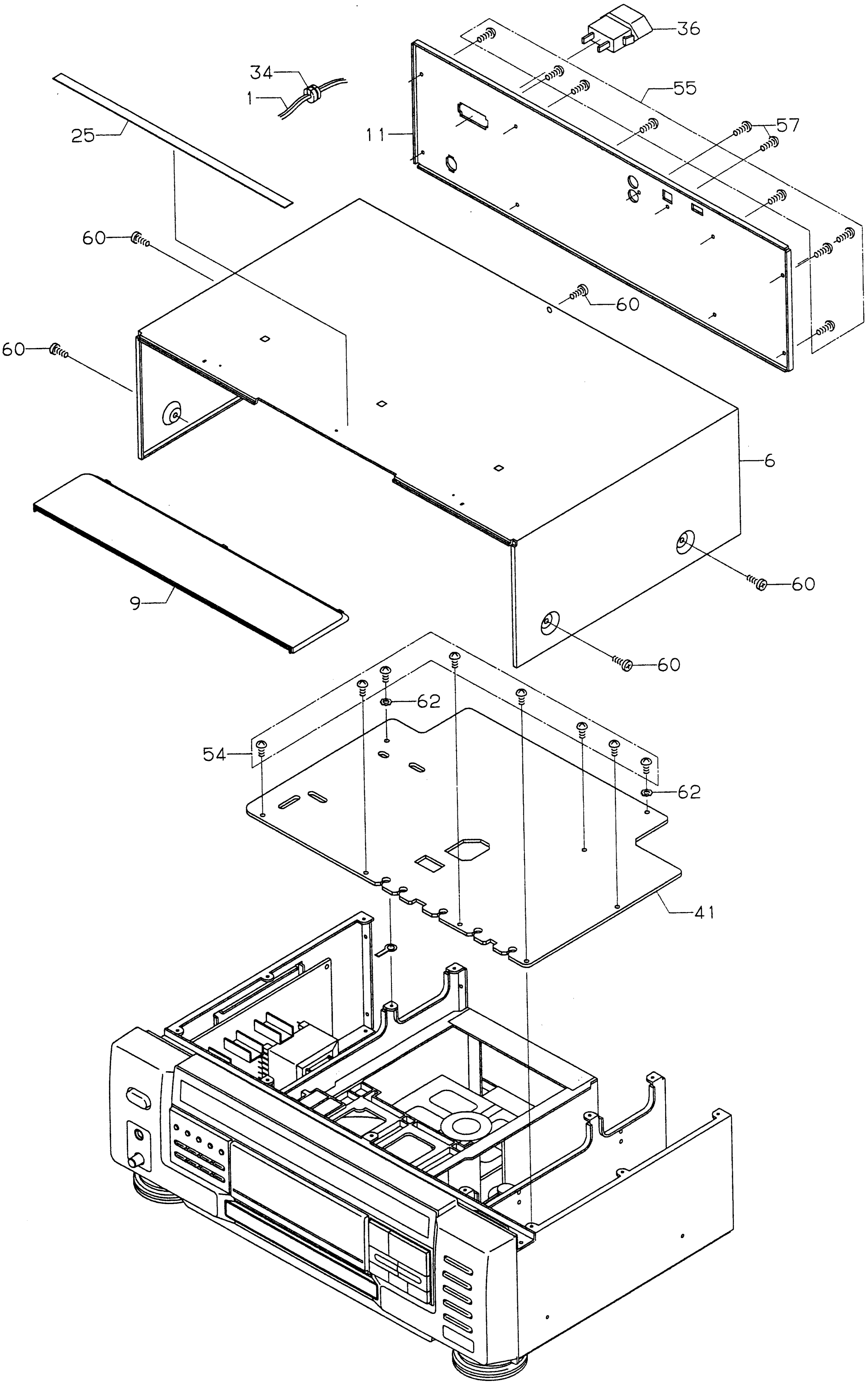
CD MECHANISM PARTS LIST

Ref. No.	Part No.	Description	Q'ty
CD MECHANISM			
1	620 200 9582	Assy,Pickup,Laser,88,CPW	1
2	620 015 8633	Leaf Switch [S7]	1
3	620 030 4290	Spindle Motor [M3]	1
4	620 190 1702	Motor [M4]	1
5	620 183 4819	Chassis Assy	1
6	620 125 1487	Washer M1.9X7.0X0.25	1
7	620 127 7814	Gear Motor	1
8	620 127 9542	Gear Pinion	1
9	620 127 9559	Gear Load B	1
10	620 127 9566	Gear Load S	1
11	620 127 9573	Gear Rack	1
12	620 133 4159	Shaft Pick-UP	2
13	620 196 2697	Spring,Torsion	4
14	620 123 0116	Set Screw V-Cone 2X4	1
15	620 082 7478	Turntable Assy	1
21	411 019 9302	SCR PAN PCS 1.7X2.5	4
22	411 129 0800	SCR FLT PCS 2X5	2
23	411 107 6404	SCR S-TPG PAN 2.6X6	1

NOTES:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

CABINET EXPLODED VIEW (1)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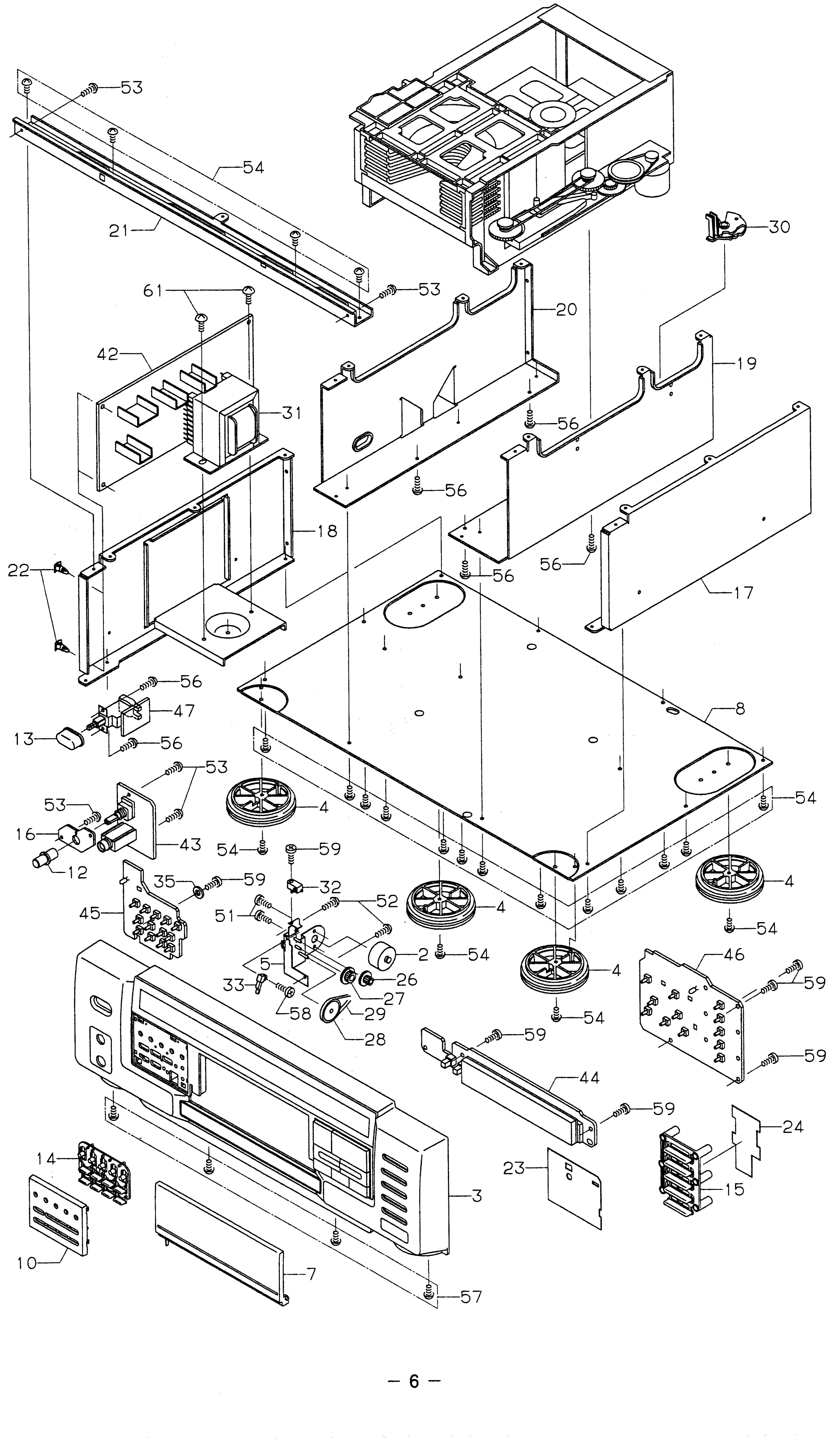
CABINET EXPLODED VIEW (2)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CABINET PARTS LIST

Ref. No.	Part No.	Description	Q'ty
PACKAGE			
	620 203 2399	Pad	4
	620 204 3746	Inner Carton	1
	620 200 0329	Pad,Top	1
	620 200 0343	Pad,Bottom	1
	620 059 6596	Patching Sheet	1
	620 148 8012	Sheet Polyethylene	1
ACCESSORIES			
	620 204 4125	Assy,Poly Cover	1
	620 021 7408	RCA Cord 1000mm Black	1
	620 204 4088	Instruction Manual	1
	620 017 7955	Connector 4P Assy	1
	620 152 2624	Certificate Card	1
	620 152 7452	Serial No. Sheet	1
	620 057 8783	Bag Fan	1
	620 196 2826	Opto Connector,DIG I/O	1
	620 150 8567	Notes	1
CABINET			
	620 201 1684	Assy,Connector-S,6P	1
	620 201 1691	Assy,Connector-S,2P	1
	620 201 1707	Assy,Connector-S,4P	1
	620 201 1721	Assy,Connector-S,5P	1
	620 201 1738	Assy,Connector-S,6P	1
	620 201 1769	Assy,Connector-S,4P	1
	620 201 1776	Assy,Connector-S,2P	1
	620 207 1022	Label,Caution	1
	620 061 2340	Notes (Laser)	1
	620 061 2401	Notes (Laser)	1
	620 061 2418	Notes (Laser)	1
	620 125 8424	Wire Band	12
1	⚠ 620 023 7550	Power Cord	1
2	620 200 2194	Assy,Motor,3V,1W	1
3	620 204 3722	Assy,Cabinet	1
4	620 198 6969	Assy,Foot	4
5	620 198 7928	Assy,Chassis,Lid	1
6	620 198 7775	Cover	1
7	620 198 5733	Lid	1
8	620 198 7843	Plate,Bottom	1
9	620 198 5726	Panel,Top	1
10	620 198 5719	Panel,Front	1
11	620 204 3685	Panel,Rear	1
12	620 198 0615	Knob,Rotary,Volume	1
13	620 198 0622	Button,Power	1
14	620 198 5696	Button,Program	1
15	620 198 5740	Button,Eject	1
16	620 201 8973	Bracket-E	1
17	620 198 7782	Bracket-M,Right	1
18	620 198 7799	Bracket-M,Left	1
19	620 198 7805	Bracket-M,Mechanism,Right	1
20	620 198 7812	Bracket-M,Mechanism,Left	1
21	620 198 7829	Bracket-M,Front	1
22	620 202 1041	Mount-E,PCB	2
23	620 201 4968	Cushion,Button	1
24	620 203 2160	Cushion,Button	1
25	620 203 0326	Adhesive Sheet	1
26	620 196 3380	Gear,Eject	1
27	620 196 3397	Gear,Load	1
28	620 196 3403	Pulley,Gear	1
29	620 196 3373	Belt,Square	1
30	620 199 5466	Lever,Lock,Mechanism	1
31	⚠ 620 201 8614	Power Trans,SEV,30VA	1
32	620 196 4868	Switch,Push,NO,1P-1T (LID)	1
33	620 196 4073	Switch,Leaf (LID)	1
34	620 053 2136	Bushing (MP4N-4)	1
35	620 125 4709	Washer M2.1X3.5X0.5	1
36	⚠ 620 017 1212	AC Socket	1
41	620 201 5279	Assy,PCB,Main	1
42	620 201 5286	Assy,PCB,Trans	1
43	620 201 0328	Assy,PCB,Headphone	1
44	620 204 9915	Assy,PCB,FL-Display	1
45	620 201 1233	Assy,PCB,Switch,Left	1
46	620 201 1240	Assy,PCB,Switch,Right	1
47	620 203 9695	Assy,PCB,Power Switch	1
51	411 019 8909	SCR PAN PCS 1.7X2	2
52	411 020 5508	SCR S-TPG BRZ 2.6X6	2
53	411 020 5706	SCR S-TPG BRZ 2.6X8	5
54	411 020 7700	SCR S-TPG BRZ 3X6	29
55	411 099 9704	SCR S-TPG BRZ 3X6	8
56	411 020 8004	SCR S-TPG BRZ 3X8	6
57	411 099 9803	SCR S-TPG BRZ 3X8	6
58	411 021 0601	SCR S-TPG BIN 2X5	1
59	411 021 1202	SCR S-TPG BIN 2X8	7
60	411 021 6603	SCR S-TPG BIN 3X8	5
61	411 024 8406	SCR S-TPG TRS 4X8	2
62	411 085 2504	WASHER Out TW 3	2

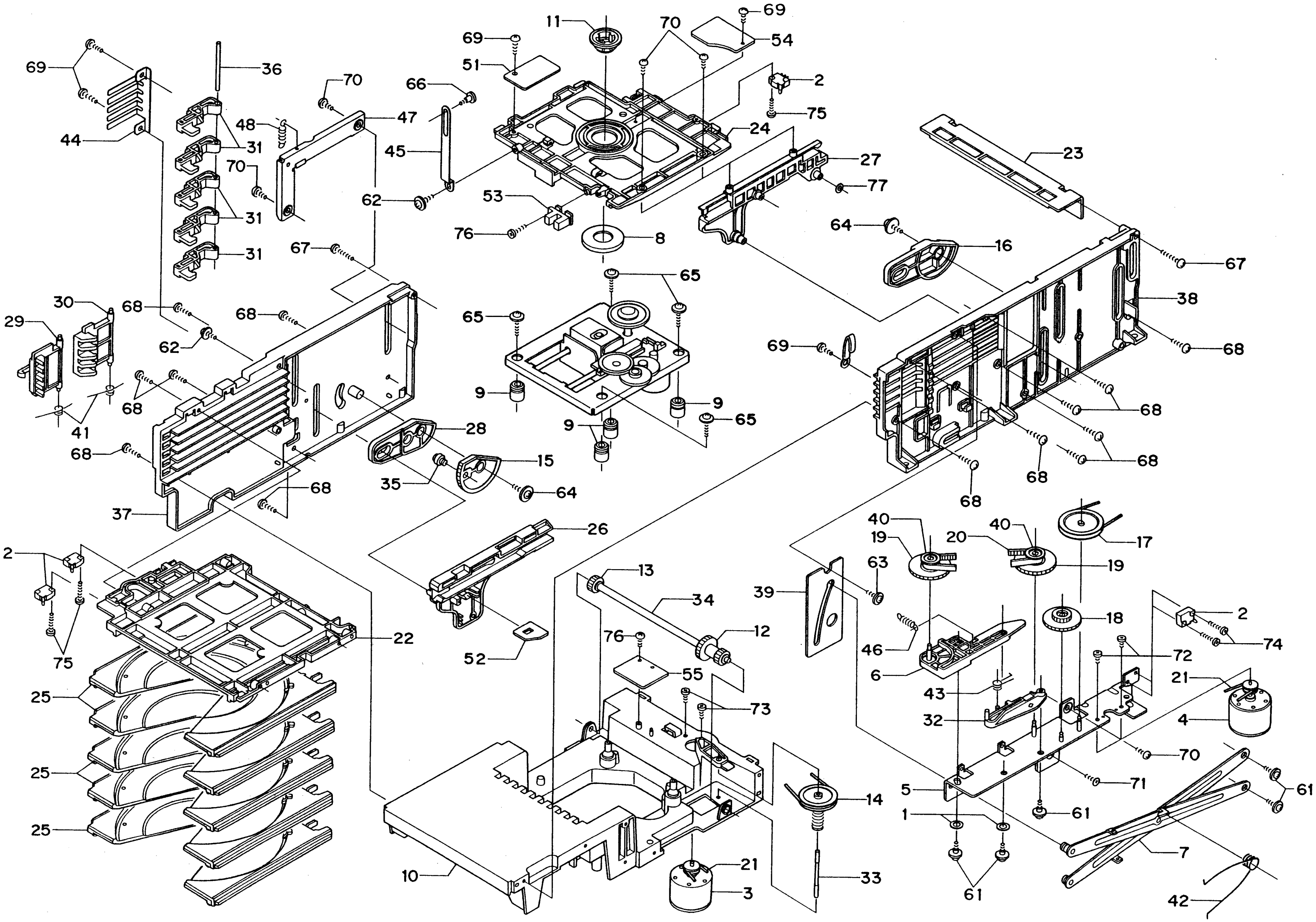
NOTES:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

CD INDEX MECHANISM EXPLODED VIEW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CD INDEX MECHANISM PARTS LIST

Ref. No.	Part No.	Description	Q'ty
INDEX MECHANISM			
	620 114 9104	Sheet	2
	620 125 8110	Lug	1
	620 125 8424	Wire Band	8
1	620 125 6673	Washer 4.7X9X0.13	2
2	620 016 9363	Lever Switch 1P2T [S3~S6]	4
3	620 030 4108	Motor (TRAY UP/DOWN) [M1]	1
4	620 030 4115	Motor (TRAY OPEN) [M2]	1
5	620 084 2501	Slide Plate Assy	1
6	620 085 0896	Lever Index Assy	1
7	620 085 3385	Arm Index Assy	1
8	620 085 6553	Magnet Assy	1
9	620 124 3376	Cushion Rubber	4
10	620 117 1204	Chassis (Load)	1
11	620 119 1530	Holder Disc	1
12	620 127 8514	Gear Wormwheel	1
13	620 127 8521	Gear Index	1
14	620 127 8538	Gear Worm	1
15	620 127 8545	Gear Cam Left	1
16	620 127 8552	Gear Cam Right	1
17	620 127 8569	Gear Pulley	1
18	620 127 8576	Gear Load	1
19	620 127 8583	Gear Pinion	2
20	620 128 3600	Belt (Timing)	1
21	620 128 6540	Belt	2
22	620 129 5948	Support Front	1
23	620 129 5955	Support Rear	1
24	620 129 5962	Flap Disc Cramp	1
25	620 193 6438	Tray	5
26	620 130 6736	Slide Left	1
27	620 130 6743	Slide Right	1
28	620 131 9262	Lever Cam Left	1
29	620 131 9279	Lever Eject	1
30	620 131 9286	Lever Stop	1
31	620 131 9293	Lever Rock	5
32	620 131 9309	Lever Adjust	1
33	620 133 3572	Shaft Gear Worm	1
34	620 133 3589	Shaft Index	1
35	620 133 3596	Pin Adjust	1
36	620 133 3602	Shaft Lever Rock	1
37	620 136 0684	Guide Left	1
38	620 136 0691	Guide Right	1
39	620 136 0707	Guide Plate	1
40	620 136 5887	Cap Gear Pinion	2
41	620 137 9105	Spring Lever Stop	2
42	620 137 9112	Spring Arm Index	1
43	620 137 9129	Spring Lever Adjust	1
44	620 138 6394	Spring Lever Rock	1
45	620 138 6400	Spring Plate	1
46	620 139 1091	Spring Lever Index	1
47	620 130 7122	Slide Plate Left	1
48	620 139 1367	Spring Slide PL Left	1
51	620 079 3001	PCB LED Assy	1
52	620 079 3018	PCB Photo TR. Assy	1
53	620 079 3025	PCB Photo Sense Assy	1
54	620 187 7977	PCB LED 8CM Assy	1
55	620 187 7984	PCB Sens 8CM Assy	1
61	620 122 6249	SCR PAN TPG-2 +M2.6X5.0	5
62	620 122 6324	Screw Washer +2.6X6.0	2
63	620 051 4279	Screw 3X8	1
64	620 051 4316	Screw 3X10	2
65	620 123 1021	Screw Braz. HD. +M2.6X14	4
66	620 122 8397	Screw Tapping +2.0X6.0	1
67	411 020 7007	SCR S-TPG BRZ 3X20	2
68	411 020 5904	SCR S-TPG BRZ 3X10	13
69	411 020 7700	SCR S-TPG BRZ 3X6	6
70	411 020 5508	SCR S-TPG BRZ 2.6X6	5
71	411 022 1904	SCR S-TPG FLT 2.6X6	1
72	411 031 0103	SCR BIN 2.6X3	2
73	411 031 0905	SCR BIN 2.6X4	2
74	411 030 7707	SCR BIN 2X8	2
75	411 063 7309	SCR TPG BIN 2X10	3
76	411 063 8504	SCR TPG BIN 2X8	1
77	412 034 0701	SPECIAL WASHER	1

Ref. No.	Part No.	Description	Q'ty

NOTES:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

P.C.BOARD PARTS LIST

Ref. No.	Part No.	Description	Q'ty
ASSY,PCB,MAIN			
41	620 201 5279	Assy,PCB,Main	1
	620 021 6807	Pin 1P	1
	620 197 9473	Heat Sink	1
	620 204 0516	Jack,RCA,2P,W/GND	1
	620 196 1607	Converter,E/O,Totx-174	1
	620 201 2308	Wire,Staple,L=35mm	1
	620 125 8516	Staple 7.5	2
	620 125 8752	Staple 15mm	8
	620 125 8943	Staple 30mm	1
CN101	620 201 4296	Plug,6P	1
CN102	620 021 8337	Plug 6P	1
CN103	620 021 5954	Plug 6P	1
CN104	620 021 1970	Plug 2P	1
CN105	620 021 5930	Plug 4P	1
CN106	620 021 5947	Plug 5P	1
CN107	620 021 8610	Plug 6P	1
CN108	620 021 8597	Plug 4P	1
CN110	620 021 8306	Plug 2P	1
CN111	620 021 6555	Plug 4P	1
CN501	620 022 1641	Plug 13P	1
CN502	620 201 2339	Plug,12P	1
CN503	620 021 8481	Plug 8P	1
CN504	620 021 9976	Plug 9P	1
CN505	620 021 8412	Plug 8P	1
CN601	620 021 8474	Plug 7P	1
CN602	620 021 8320	Plug 5P	1
CN701	620 021 8399	Plug 7P	1
CN702	620 021 8474	Plug 7P	1
CN801	620 021 8450	Plug 3P	1
CN802	620 021 8313	Plug 3P	1
CN901	620 021 6234	Plug 7P	1
CN902	620 021 5930	Plug 4P	1
CN903	620 021 5923	Plug 3P	1
CN904	620 021 5923	Plug 3P	1
C221	620 197 3181	Capacitor,22000U,5.5V,JB	1
L101	620 197 9039	Inductor 100UH K	1
L102	620 026 8752	RF Low Pass Filter	1
L103	620 028 8699	OSC Coil	1
RB101	620 004 5162	Resistor 8X22K J	1
RB102	620 004 5483	Resistor 22K-9	1
RB103	620 004 5582	Resistor 6X22K J	1
RB104	620 004 5247	Resistor 4X22K J	1
T101	620 202 4349	Terminal,8P,P=2.5	1
T102	620 202 4332	Terminal,7P,P=2.5	1
T103	620 202 4318	Terminal,5P,P=2.5	1
T104	620 202 4271	Terminal,2P,P=2.5	1
T105	620 202 4271	Terminal,2P,P=2.5	1
VR101	620 006 1384	Potentiometer 220KB	1
VR102	620 006 1353	Potentiometer 100KB	1
VR103	620 006 1384	Potentiometer 220KB	1
VR104	620 006 1353	Potentiometer 100KB	1
VR105	620 006 1384	Potentiometer 220KB	1
VR106	620 006 1353	Potentiometer 100KB	1
XT101	620 203 4164	Resonator,Xtal,16.9344MHz	1
or	620 201 4265	Resonator,Xtal,16.9344MHz	1
IC101	409 124 6507	IC LA9200NM	1
IC102	409 183 9006	IC YM3815-H	1
IC103	409 020 6205	IC LC3517AM-15	1
IC104	409 204 0609	IC YM3613C	1
IC105	409 195 4204	IC PD0050	1
IC106	409 071 9200	IC TC4075B	1
IC107	409 051 2207	IC TC4049BP	1
IC108	409 070 5401	IC NJM4558	1
IC109	409 070 5401	IC NJM4558	1
IC110	409 070 5401	IC NJM4558	1
IC111	409 070 5401	IC NJM4558	1
IC112	409 183 8504	IC STA341M	1
IC113	409 189 1509	IC M50754-156FP	1
or	410 072 2305	IC M50957EFP156	1
IC114	409 128 0105	IC LC3517BML-15	1
IC115	409 087 1304	IC LC74HC241	1
IC116	409 018 5500	IC LA6510	1
IC117	409 186 6507	IC LC6538D-4130	1
IC118	409 052 1407	IC TC74HCU04P	1
IC119	409 140 2705	IC LA6501-LR	1
IC123	409 070 7009	IC PCM56P	1
IC124	409 070 7009	IC PCM56P	1
IC128	409 039 7507	IC NJM4558D-D	1
IC129	409 039 7507	IC NJM4558D-D	1
Q101	405 032 3102	TR 2SB911-M	1
Q102	405 019 2708	TR 2SC536-F-NP-AA	1
Q103	405 019 2708	TR 2SC536-F-NP-AA	1
Q104	405 019 2708	TR 2SC536-F-NP-AA	1
Q105	405 019 2708	TR 2SC536-F-NP-AA	1
Q106	405 034 6705	TR DTA114-EF	1
Q107	405 019 2708	TR 2SC536-F-NP-AA	1
Q108	405 019 2708	TR 2SC536-F-NP-AA	1
Q109	405 019 2708	TR 2SC536-F-NP-AA	1
Q110	405 033 5006	TR 2SD1227-M	1
Q111	405 032 3102	TR 2SB911-M	1
Q112	405 033 5006	TR 2SD1227-M	1
Q113	405 032 3102	TR 2SB911-M	1
Q114	405 019 2708	TR 2SC536-F-NP-AA	1
Q115	405 019 2708	TR 2SC536-F-NP-AA	1
Q116	405 019 2708	TR 2SC536-F-NP-AA	1
Q117	405 019 2708	TR 2SC536-F-NP-AA	1
Q118	405 019 2708	TR 2SC536-F-NP-AA	1
Q119	405 019 2708	TR 2SC536-F-NP-AA	1
Q120	405 019 2708	TR 2SC536-F-NP-AA	1
Q121	405 019 2708	TR 2SC536-F-NP-AA	1
Q122	405 021 0204	TR 2SD1012-F-SPA-AC	1
Q123	405 003 7702	TR 2SA1346	1
Q124	405 003 7702	TR 2SA1346	1
Q125	405 019 2708	TR 2SC536-F-NP-AA	1
Q126	405 019 2708	TR 2SC536-F-NP-AA	1
Q127	405 019 2708	TR 2SC536-F-NP-AA	1
Q128	405 019 2708	TR 2SC536-F-NP-AA	1
Q129	405 019 2708	TR 2SC536-F-NP-AA	1
Q130	405 019 2708	TR 2SC536-F-NP-AA	1
Q131	405 021 0204	TR 2SD1012-F-SPA-AC	1
Q132	405 021 0204	TR 2SD1012-F-SPA-AC	1
Q133	405 021 0204	TR 2SD1012-F-SPA-AC	1
Q134	405 021 0204	TR 2SD1012-F-SPA-AC	1
Q135	405 004 4502	TR 2SA608-F-NP-AA	1
Q136	405 019 2708	TR 2SC536-F-NP-AA	1
Q137	405 019 2708	TR 2SC536-F-NP-AA	1
Q138	405 021 0204	TR 2SD1012-F-SPA-AC	1
Q138	405 021 0600	TR 2SD1012-G-SPA-AC	1
Q139	405 021 0204	TR 2SD1012-F-SPA-AC	1
Q139	405 021 0600	TR 2SD1012-G-SPA-AC	1
D101	407 000 3503	VARACTOR DI SVC211SP	1
D102	407 008 7206	DIODE MA700	1
D103	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D104	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D105	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D106	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D107	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D108	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D109	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D110	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D111	407 005 3805	DIODE DS442-BT	1
D112	407 005 3805	DIODE DS442-BT	1
D113	407 005 3805	DIODE DS442-BT	1
D114	407 005 3805	DIODE DS442-BT	1
D115	407 005 3805	DIODE DS442-BT	1
D116	407 005 3805	DIODE DS442-BT	1
D117	407 005 3805	DIODE DS442-BT	1
D118	407 005 3805	DIODE DS442-BT	1
D119	407 005 3805	DIODE DS442-BT	1
D120	407 005 3805	DIODE DS442-BT	1
D121	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D122	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D123	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D124	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D125	407 125 8209	DIODE HSS271	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description				Q'ty
or	407 008 0405	DIODE GMB01-BT				1
D126	407 125 8209	DIODE HSS271				1
or	407 008 0405	DIODE GMB01-BT				1
D127	407 125 8209	DIODE HSS271				1
or	407 008 0405	DIODE GMB01-BT				1
D128	407 125 8209	DIODE HSS271				1
or	407 008 0405	DIODE GMB01-BT				1
D301	407 008 0405	DIODE GMB01-BT				1
D301	407 125 8209	DIODE HSS271				1
C101	403 030 6309	CERAMIC	68P	J	50V	1
C102	403 071 2001	CERAMIC	180P	K	50V	1
C103	403 048 7701	ELECT	0.47U	M	50V	1
C104	403 030 6309	CERAMIC	68P	J	50V	1
C105	403 059 5604	POLYESTER	0.022U	J	50V	1
C106	403 057 0908	POLYESTER	0.01U	K	50V	1
C107	403 071 6207	CERAMIC	220P	K	50V	1
C108	403 060 5808	POLYESTER	3300P	J	50V	1
C109	403 087 2507	STYRENE	1000P	J	50V	1
C110	403 057 0908	POLYESTER	0.01U	K	50V	1
C111	403 067 5603	MT-COMPO	0.1U	J	50V	1
C112	403 049 5409	ELECT	10U	M	50V	1
C113	403 072 2703	CERAMIC	0.022U	Z	50V	1
C114	403 075 4506	CERAMIC	820P	K	50V	1
C115	403 048 7701	ELECT	0.47U	M	50V	1
C116	403 067 7201	MT-COMPO	0.033U	J	50V	1
C117	403 072 2703	CERAMIC	0.022U	Z	50V	1
C118	403 067 5603	MT-COMPO	0.1U	J	50V	1
C121	403 038 2402	ELECT	100U	M	6.3V	1
C122	403 038 2402	ELECT	100U	M	6.3V	1
C123	403 049 5409	ELECT	10U	M	50V	1
C124	403 026 2209	CERAMIC	47P	J	50V	1
C125	403 026 2209	CERAMIC	47P	J	50V	1
C126	403 072 2703	CERAMIC	0.022U	Z	50V	1
C127	403 044 0300	ELECT	47U	M	16V	1
C128	403 057 0908	POLYESTER	0.01U	K	50V	1
C129	403 059 3303	POLYESTER	2200P	J	50V	1
C131	403 067 6204	MT-COMPO	0.15U	J	50V	1
C132	403 067 6709	MT-COMPO	0.22U	J	50V	1
C133	403 067 7805	MT-COMPO	0.47U	J	50V	1
C134	403 085 6408	NP-ELECT	4.7U	M	16V	1
C135	403 049 1609	ELECT	1U	M	50V	1
C136	403 067 5900	MT-COMPO	0.12U	J	50V	1
C137	403 069 8404	CERAMIC	0.01U	Z	50V	1
C138	403 069 8404	CERAMIC	0.01U	Z	50V	1
C139	403 044 0300	ELECT	47U	M	16V	1
C140	403 072 4707	CERAMIC	270P	K	50V	1
C141	403 049 1609	ELECT	1U	M	50V	1
C142	403 059 5604	POLYESTER	0.022U	J	50V	1
C143	403 067 6709	MT-COMPO	0.22U	J	50V	1
C144	403 067 8307	MT-COMPO	0.68U	J	50V	1
C145	403 044 0300	ELECT	47U	M	16V	1
C146	403 044 0300	ELECT	47U	M	16V	1
C147	403 044 0300	ELECT	47U	M	16V	1
C148	403 044 0300	ELECT	47U	M	16V	1
C149	403 050 1209	ELECT	2.2U	M	50V	1
C150	403 038 2402	ELECT	100U	M	6.3V	1
C151	403 057 7204	POLYESTER	0.012U	J	50V	1
C152	403 057 7204	POLYESTER	0.012U	J	50V	1
C153	403 059 3303	POLYESTER	2200P	J	50V	1
C154	403 086 2706	NP-ELECT	1U	M	50V	1
C155	403 059 3303	POLYESTER	2200P	J	50V	1
C156	403 059 5604	POLYESTER	0.022U	J	50V	1
C157	403 048 7701	ELECT	0.47U	M	50V	1
C158	403 048 7701	ELECT	0.47U	M	50V	1
C159	403 049 1609	ELECT	1U	M	50V	1
C160	403 039 7802	ELECT	100U	M	10V	1
C161	403 121 9509	CERAMIC	0.1U	Z	50V	1
C162	403 049 5508	ELECT	10U	M	50V	1
C163	403 069 8404	CERAMIC	0.01U	Z	50V	1
C164	403 121 9509	CERAMIC	0.1U	Z	50V	1
C165	403 039 7802	ELECT	100U	M	10V	1
C166	403 086 2706	NP-ELECT	1U	M	50V	1
C168	403 067 5603	MT-COMPO	0.1U	J	50V	1
C169	403 051 2007	ELECT	4.7U	M	50V	1
C170	403 044 0201	ELECT	47U	M	16V	1
C171	403 044 0201	ELECT	47U	M	16V	1
C172	403 086 2706	NP-ELECT	1U	M	50V	1
C173	403 086 2706	NP-ELECT	1U	M	50V	1
C174	403 067 5603	MT-COMPO	0.1U	J	50V	1

Ref. No.	Part No.	Description				Q'ty
C175	403 067 5603	MT-COMPO	0.1U	J	50V	1
C176	403 069 8404	CERAMIC	0.01U	Z	50V	1
C177	403 072 2703	CERAMIC	0.022U	Z	50V	1
C178	403 072 2703	CERAMIC	0.022U	Z	50V	1
C180	403 067 5702	MT-COMPO	1U	J	50V	1
C181	403 049 5409	ELECT	10U	M	50V	1
C182	403 059 5604	POLYESTER	0.022U	J	50V	1
C183	403 072 2703	CERAMIC	0.022U	Z	50V	1
C184	403 038 2402	ELECT	100U	M	6.3V	1
C185	403 019 7303	CERAMIC	27P	J	50V	1
C186	403 017 7404	CERAMIC	22P	J	50V	1
C187	403 072 2703	CERAMIC	0.022U	Z	50V	1
C188	403 038 2402	ELECT	100U	M	6.3V	1
C189	403 044 0300	ELECT	47U	M	16V	1
C190	403 044 0300	ELECT	47U	M	16V	1
C191	403 044 0300	ELECT	47U	M	16V	1
C192	403 044 0300	ELECT	47U	M	16V	1
C193	403 049 5508	ELECT	10U	M	50V	1
C194	403 049 5508	ELECT	10U	M	50V	1
C195	403 049 5508	ELECT	10U	M	50V	1
C196	403 049 5508	ELECT	10U	M	50V	1
C199	403 074 9205	CERAMIC	680P	K	50V	1
C200	403 074 9205	CERAMIC	680P	K	50V	1
C201	403 058 0808	POLYESTER	1500P	J	50V	1
C202	403 058 0808	POLYESTER	1500P	J	50V	1
C203	403 057 0908	POLYESTER	0.01U	K	50V	1
C204	403 057 0908	POLYESTER	0.01U	K	50V	1
C205	403 057 0908	POLYESTER	0.01U	K	50V	1
C206	403 057 0908	POLYESTER	0.01U	K	50V	1
C207	403 058 0808	POLYESTER	1500P	J	50V	1
C208	403 058 0808	POLYESTER	1500P	J	50V	1
C213	403 085 6408	NP-ELECT	4.7U	M	16V	1
C214	403 085 6408	NP-ELECT	4.7U	M	16V	1
C217	403 086 2706	NP-ELECT	1U	M	50V	1
C220	403 038 2402	ELECT	100U	M	6.3V	1
C226	403 044 0300	ELECT	47U	M	16V	1
C227	403 044 0300	ELECT	47U	M	16V	1
C230	403 072 2703	CERAMIC	0.022U	Z	50V	1
C241	403 044 0300	ELECT	47U	M	16V	1
C242	403 044 0300	ELECT	47U	M	16V	1
C243	403 067 7805	MT-COMPO	0.47U	J	50V	1
C244	403 074 2701	CERAMIC	0.047U	Z	50V	1
C245	403 072 2703	CERAMIC	0.022U	Z	50V	1
C247	403 028 1705	CERAMIC	56P	J	50V	1
C249	403 072 2703	CERAMIC	0.022U	Z	50V	1
C251	403 072 2703	CERAMIC	0.022U	Z	50V	1
C252	403 049 1609	ELECT	1U	M	50V	1
R101	401 027 2600	CARBON	5.6K	JA	1/6W	1
R102	401 026 4902	CARBON	330K	JA	1/6W	1
R103	401 027 2303	CARBON	560	JA	1/6W	1
R104	401 026 9907	CARBON	4.7K	JA	1/6W	1
R105	401 027 9005	CARBON	82K	JA	1/6W	1
R106	401 027 5908	CARBON	68K	JA	1/6W	1
R107	401 026 4308	CARBON	3.3K	JA	1/6W	1
R108	401 026 9907	CARBON	4.7K	JA	1/6W	1
R109	401 025 7409	CARBON	220	JA	1/6W	1
R110	401 025 8208	CARBON	22K	JA	1/6W	1
R111	401 025 1605	CARBON	1.5K	JA	1/6W	1
R112	401 020 0801	CARBON	470	JA	1/4W	1
R113	401 025 7805	CARBON	2.2K	JA	1/6W	1
R114	401 024 7707	CARBON	100K	JA	1/6W	1
R115	401 024 7707	CARBON	100K	JA	1/6W	1
R116	401 024 7707	CARBON	100K	JA	1/6W	1
R117	401 024 7400	CARBON	10K	JA	1/6W	1
R118	401 020 2904	CARBON	47K	JA	1/4W	1
R119	401 026 7408	CARBON	39K	JA	1/6W	1
R120	401 025 2305	CARBON	150K	JA	1/6W	1
R121	401 024 7707	CARBON	100K	JA	1/6W	1
R122	401 024 7004	CARBON	1K	JA	1/6W	1
R123	401 025 8703	CARBON	220K	JA	1/6W	1
R124	401 027 0309	CARBON	47K	JA	1/6W	1
R125	401 026 9907	CARBON	4.7K	JA	1/6W	1
R126	401 026 0607	CARBON	270	JA	1/6W	1
R127	401 027 2600	CARBON	5.6K	JA	1/6W	1
R128	401 026 7408	CARBON	39K	JA	1/6W	1
R129	401 023 3700	CARBON	82K	JA	1/4W	1
R130	401 027 0309	CARBON	47K	JA	1/6W	1
R131	401 024 9701	CARBON	12K	JA	1/6W	1
R132	401 027 2600	CARBON	5.6K	JA	1/6W	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
R133	401 027 0309	CARBON 47K JA 1/6W	1
R134	401 020 2904	CARBON 47K JA 1/4W	1
R135	401 020 2904	CARBON 47K JA 1/4W	1
R136	401 024 7707	CARBON 100K JA 1/6W	1
R137	401 024 7400	CARBON 10K JA 1/6W	1
R138	401 024 6700	CARBON 100 JA 1/6W	1
R139	401 027 3201	CARBON 560K JA 1/6W	1
R140	401 027 6103	CARBON 680K JA 1/6W	1
R141	401 025 0004	CARBON 120K JA 1/6W	1
R145	401 026 1307	CARBON 27K JA 1/6W	1
R146	401 025 8703	CARBON 220K JA 1/6W	1
R147	401 025 8703	CARBON 220K JA 1/6W	1
R148	401 026 1307	CARBON 27K JA 1/6W	1
R149	401 026 1307	CARBON 27K JA 1/6W	1
R150	401 025 8208	CARBON 22K JA 1/6W	1
R151	401 025 8208	CARBON 22K JA 1/6W	1
R152	401 025 8208	CARBON 22K JA 1/6W	1
R153	401 027 0309	CARBON 47K JA 1/6W	1
R154	401 024 7400	CARBON 10K JA 1/6W	1
R155	401 025 8208	CARBON 22K JA 1/6W	1
R156	401 027 0309	CARBON 47K JA 1/6W	1
R157	401 027 9005	CARBON 82K JA 1/6W	1
R158	401 027 5205	CARBON 680 JA 1/6W	1
R159	401 026 4605	CARBON 33K JA 1/6W	1
R160	401 026 4308	CARBON 3.3K JA 1/6W	1
R161	401 026 1307	CARBON 27K JA 1/6W	1
R162	401 027 2600	CARBON 5.6K JA 1/6W	1
R163	401 027 2600	CARBON 5.6K JA 1/6W	1
R164	401 026 7408	CARBON 39K JA 1/6W	1
R165	401 026 1000	CARBON 2.7K JA 1/6W	1
R166	401 026 4605	CARBON 33K JA 1/6W	1
R167	401 025 8208	CARBON 22K JA 1/6W	1
R168	401 027 0309	CARBON 47K JA 1/6W	1
R169	401 026 1604	CARBON 270K JA 1/6W	1
R170	401 024 7400	CARBON 10K JA 1/6W	1
R171	401 027 5205	CARBON 680 JA 1/6W	1
R172	401 025 8208	CARBON 22K JA 1/6W	1
R173	401 025 7805	CARBON 2.2K JA 1/6W	1
R174	401 024 7400	CARBON 10K JA 1/6W	1
R175	401 024 7707	CARBON 100K JA 1/6W	1
R176	401 024 7707	CARBON 100K JA 1/6W	1
R177	401 024 7707	CARBON 100K JA 1/6W	1
R178	401 024 7707	CARBON 100K JA 1/6W	1
R179	401 012 9300	CARBON 1M JA 1/4W	1
R180	401 025 8703	CARBON 220K JA 1/6W	1
R181	401 024 7400	CARBON 10K JA 1/6W	1
R182	401 025 8703	CARBON 220K JA 1/6W	1
R183	401 025 8703	CARBON 220K JA 1/6W	1
R184	401 027 9302	CARBON 820K JA 1/6W	1
R185	401 019 3004	CARBON 39K JA 1/4W	1
R186	401 024 7400	CARBON 10K JA 1/6W	1
R187	401 025 8208	CARBON 22K JA 1/6W	1
R188	401 027 0507	CARBON 470K JA 1/6W	1
R189	401 025 3807	CARBON 180 JA 1/6W	1
R190	401 019 9600	CARBON 47 JA 1/4W	1
R191	401 024 7707	CARBON 100K JA 1/6W	1
R192	401 024 7707	CARBON 100K JA 1/6W	1
R193	401 027 3201	CARBON 560K JA 1/6W	1
R194	401 027 3201	CARBON 560K JA 1/6W	1
R195	401 026 1307	CARBON 27K JA 1/6W	1
R196	401 025 7805	CARBON 2.2K JA 1/6W	1
R197	401 026 1307	CARBON 27K JA 1/6W	1
R198	401 015 6504	CARBON 2.2 JA 1/4W	1
R199	401 013 7305	CARBON 120K JA 1/4W	1
R201	401 026 9907	CARBON 4.7K JA 1/6W	1
R202	401 026 9907	CARBON 4.7K JA 1/6W	1
R203	401 024 7707	CARBON 100K JA 1/6W	1
R204	401 024 7707	CARBON 100K JA 1/6W	1
R205	401 024 7400	CARBON 10K JA 1/6W	1
R206	401 024 7400	CARBON 10K JA 1/6W	1
R207	401 026 9907	CARBON 4.7K JA 1/6W	1
R208	401 024 7707	CARBON 100K JA 1/6W	1
R210	401 026 3905	CARBON 330 JA 1/6W	1
R211	401 024 7400	CARBON 10K JA 1/6W	1
R212	401 026 3905	CARBON 330 JA 1/6W	1
R213	401 024 7400	CARBON 10K JA 1/6W	1
R214	401 025 8703	CARBON 220K JA 1/6W	1
R215	401 024 7004	CARBON 1K JA 1/6W	1
R216	401 024 7707	CARBON 100K JA 1/6W	1
R217	401 016 4806	CARBON 22K JA 1/4W	1
R218	401 025 8208	CARBON 22K JA 1/6W	1
R219	401 025 8208	CARBON 22K JA 1/6W	1
R220	401 025 8208	CARBON 22K JA 1/6W	1
R221	401 024 7707	CARBON 100K JA 1/6W	1
R222	401 025 8208	CARBON 22K JA 1/6W	1
R223	401 025 8208	CARBON 22K JA 1/6W	1
R224	401 024 7400	CARBON 10K JA 1/6W	1
R225	401 024 7400	CARBON 10K JA 1/6W	1
R226	401 026 9907	CARBON 4.7K JA 1/6W	1
R227	401 025 8208	CARBON 22K JA 1/6W	1
R228	401 025 8703	CARBON 220K JA 1/6W	1
R229	401 024 7004	CARBON 1K JA 1/6W	1
R230	401 027 0309	CARBON 47K JA 1/6W	1
R231	401 024 8001	CARBON 1M JA 1/6W	1
R232	401 024 7004	CARBON 1K JA 1/6W	1
R233	401 026 1604	CARBON 270K JA 1/6W	1
R234	401 026 1604	CARBON 270K JA 1/6W	1
R235	401 025 8703	CARBON 220K JA 1/6W	1
R236	401 027 5502	CARBON 6.8K JA 1/6W	1
R237	401 027 5502	CARBON 6.8K JA 1/6W	1
R238	401 024 7004	CARBON 1K JA 1/6W	1
R239	401 024 6403	CARBON 10 JA 1/6W	1
R240	401 024 6007	CARBON 1.5 JA 1/6W	1
R241	401 025 3807	CARBON 180 JA 1/6W	1
R242	401 024 6007	CARBON 1.5 JA 1/6W	1
R243	401 025 8208	CARBON 22K JA 1/6W	1
R244	401 024 6700	CARBON 100 JA 1/6W	1
R245	401 025 8208	CARBON 22K JA 1/6W	1
R246	401 026 4605	CARBON 33K JA 1/6W	1
R247	401 027 0309	CARBON 47K JA 1/6W	1
R248	401 027 0309	CARBON 47K JA 1/6W	1
R249	401 027 3003	CARBON 56K JA 1/6W	1
R250	401 028 0308	CARBON 91K JA 1/6W	1
R251	401 025 0004	CARBON 120K JA 1/6W	1
R252	401 025 0004	CARBON 120K JA 1/6W	1
R253	401 025 8208	CARBON 22K JA 1/6W	1
R254	401 025 8208	CARBON 22K JA 1/6W	1
R255	401 025 5405	CARBON 2.2 JA 1/6W	1
R256	401 025 5405	CARBON 2.2 JA 1/6W	1
R257	401 027 5502	CARBON 6.8K JA 1/6W	1
R258	401 025 4200	CARBON 1.8K JA 1/6W	1
R259	401 027 5502	CARBON 6.8K JA 1/6W	1
R260	401 024 6403	CARBON 10 JA 1/6W	1
R261	401 025 3807	CARBON 180 JA 1/6W	1
R262	401 024 6007	CARBON 1.5 JA 1/6W	1
R263	401 027 5502	CARBON 6.8K JA 1/6W	1
R264	401 027 5502	CARBON 6.8K JA 1/6W	1
R265	401 025 4200	CARBON 1.8K JA 1/6W	1
R266	401 024 6007	CARBON 1.5 JA 1/6W	1
R267	401 025 3807	CARBON 180 JA 1/6W	1
R268	401 024 6403	CARBON 10 JA 1/6W	1
R269	401 025 8703	CARBON 220K JA 1/6W	1
R270	401 027 3003	CARBON 56K JA 1/6W	1
R271	401 025 3807	CARBON 180 JA 1/6W	1
R272	401 025 8208	CARBON 22K JA 1/6W	1
R273	401 025 8208	CARBON 22K JA 1/6W	1
R281	401 025 8208	CARBON 22K JA 1/6W	1
R282	401 012 5708	CARBON 1K JA 1/4W	1
R283	401 012 4503	CARBON 100 JA 1/4W	1
R284	401 024 6700	CARBON 100 JA 1/6W	1
R285	401 025 1605	CARBON 1.5K JA 1/6W	1
R286	401 025 1605	CARBON 1.5K JA 1/6W	1
R287	401 025 1605	CARBON 1.5K JA 1/6W	1
R288	401 025 3807	CARBON 180 JA 1/6W	1
R289	401 024 7707	CARBON 100K JA 1/6W	1
R290	401 024 6700	CARBON 100 JA 1/6W	1
R291	401 024 6700	CARBON 100 JA 1/6W	1
R292	401 024 6700	CARBON 100 JA 1/6W	1
R293	401 024 6700	CARBON 100 JA 1/6W	1
R294	401 024 8001	CARBON 1M JA 1/6W	1
R295	401 012 4503	CARBON 100 JA 1/4W	1
R296	401 012 4503	CARBON 100 JA 1/4W	1
R297	401 012 4503	CARBON 100 JA 1/4W	1
R298	401 012 4503	CARBON 100 JA 1/4W	1
R299	401 024 6700	CARBON 100 JA 1/6W	1
R300	401 026 9303	CARBON 47 JA 1/6W	1
R301	401 024 6700	CARBON 100 JA 1/6W	1
R302	401 026 9303	CARBON 47 JA 1/6W	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
R303	401 024 6403	CARBON 10 JA 1/6W	1
R304	401 024 6403	CARBON 10 JA 1/6W	1
R305	401 024 6403	CARBON 10 JA 1/6W	1
R306	401 024 6403	CARBON 10 JA 1/6W	1
R319	401 014 4105	CARBON 1.5K JA 1/4W	1
R320	401 025 1605	CARBON 1.5K JA 1/6W	1
R321	401 025 1605	CARBON 1.5K JA 1/6W	1
R322	401 025 1605	CARBON 1.5K JA 1/6W	1
R323	401 025 1605	CARBON 1.5K JA 1/6W	1
R324	401 025 1605	CARBON 1.5K JA 1/6W	1
R325	401 026 2908	CARBON 3K JA 1/6W	1
R326	401 026 2908	CARBON 3K JA 1/6W	1
R327	401 025 8703	CARBON 220K JA 1/6W	1
R328	401 025 8703	CARBON 220K JA 1/6W	1
R329	401 025 0608	CARBON 1.3K JA 1/6W	1
R330	401 025 0608	CARBON 1.3K JA 1/6W	1
R333	401 027 0309	CARBON 47K JA 1/6W	1
R334	401 027 0309	CARBON 47K JA 1/6W	1
R335	401 025 7805	CARBON 2.2K JA 1/6W	1
R336	401 025 7805	CARBON 2.2K JA 1/6W	1
R337	401 027 5502	CARBON 6.8K JA 1/6W	1
R338	401 027 5502	CARBON 6.8K JA 1/6W	1
R339	401 027 5502	CARBON 6.8K JA 1/6W	1
R340	401 027 5502	CARBON 6.8K JA 1/6W	1
R341	401 027 5502	CARBON 6.8K JA 1/6W	1
R342	401 027 5502	CARBON 6.8K JA 1/6W	1
R343	401 025 8208	CARBON 22K JA 1/6W	1
R344	401 026 4308	CARBON 3.3K JA 1/6W	1
R345	401 024 7400	CARBON 10K JA 1/6W	1
R346	401 022 3107	CARBON 6.8K JA 1/4W	1
R347	401 026 9907	CARBON 4.7K JA 1/6W	1
R348	401 024 7707	CARBON 100K JA 1/6W	1
R349	401 024 7400	CARBON 10K JA 1/6W	1
R350	401 024 7707	CARBON 100K JA 1/6W	1
R351	401 024 7004	CARBON 1K JA 1/6W	1
R352	401 024 7004	CARBON 1K JA 1/6W	1
R353	401 025 7409	CARBON 220 JA 1/6W	1
R354	401 025 7409	CARBON 220 JA 1/6W	1
R355	401 027 5502	CARBON 6.8K JA 1/6W	1
R356	401 027 5502	CARBON 6.8K JA 1/6W	1
R357	401 024 6403	CARBON 10 JA 1/6W	1
R358	401 024 6403	CARBON 10 JA 1/6W	1
R359	401 024 6700	CARBON 100 JA 1/6W	1
R360	401 024 6700	CARBON 100 JA 1/6W	1
R361	401 027 8602	CARBON 8.2K JA 1/6W	1
R362	401 024 6700	CARBON 100 JA 1/6W	1
R364	401 025 8208	CARBON 22K JA 1/6W	1
R365	401 013 7305	CARBON 120K JA 1/4W	1
R366	401 026 1604	CARBON 270K JA 1/6W	1
R380	401 024 6700	CARBON 100 JA 1/6W	1
R381	401 024 6700	CARBON 100 JA 1/6W	1
R382	401 024 6700	CARBON 100 JA 1/6W	1
R383	401 024 6700	CARBON 100 JA 1/6W	1
ASSY,PCB,TRANS			
42	620 201 5286	Assy,PCB,Trans	1
	620 017 2738	Fuse Clip	10
	620 022 2587	EC Terminal 1P	2
	⚠ 423 003 9809	FUSE 250V T0.63A [F1, F2]	2
	⚠ 423 004 3301	FUSE 250V T0.8A [F3, F4]	2
	⚠ 423 006 4702	FUSE 250V T2.5A [F5]	1
	411 020 8004	SCR S-TPG BRZ 3X8	5
	620 203 9909	Terminal,Wrapper,5P	1
	620 202 4943	Terminal,Wrapper,4P	1
	620 201 3589	Label,Fuse,800X2	1
	620 053 7247	Plate Heat Sink	1
	620 053 9241	Plate Heat Sink	4
	620 054 8175	Label	1
	620 055 1243	Label (Fuse)	1
CA901	620 202 0594	Assy,Connector-S,7P	1
CA902	620 202 0600	Assy,Connector-S,4P	1
CA903	620 202 0617	Assy,Connector-S,3P	1
CA904	620 202 0624	Assy,Connector-S,3P	1
CA905	620 202 5698	Assy,Terminal,1P	1
CN506	620 021 8597	Plug 4P	1
CN603	620 021 8306	Plug 2P	1
CN703	620 021 8306	Plug 2P	1
IC901	409 070 4404	IC NJM2043DD	1
IC902	409 169 7804	IC NJM78M05FA	1

Ref. No.	Part No.	Description	Q'ty
IC903	409 169 7804	IC NJM78M05FA	1
IC904	409 050 1706	IC TA79L005P	1
Q901	405 027 0505	TR 2SK246-GR	1
Q902	405 035 7107	TR 2SD1913-R	1
or	405 035 7206	TR 2SD1913-S	1
Q903	405 027 0505	TR 2SK246-GR	1
Q904	405 052 8002	TR 2SB1274-R	1
or	405 052 8101	TR 2SB1274-S	1
Q905	405 019 2708	TR 2SC536-F-NP-AA	1
or	405 019 3804	TR 2SC536-G-NP-AA	1
Q906	405 004 4502	TR 2SA608-F-NP-AA	1
or	405 004 5103	TR 2SA608-G-SPA-AC	1
Q907	405 019 2708	TR 2SC536-F-NP-AA	1
or	405 019 3804	TR 2SC536-G-NP-AA	1
Q908	405 035 7107	TR 2SD1913-R	1
or	405 035 7206	TR 2SD1913-S	1
Q909	405 052 8002	TR 2SB1274-R	1
or	405 052 8101	TR 2SB1274-S	1
Q910	405 032 3102	TR 2SB911-M	1
D901	407 003 5306	DIODE DBA10B	1
D902	407 004 9105	DIODE DSF10C-BT	1
D903	407 004 9105	DIODE DSF10C-BT	1
D904	407 050 7308	ZENER DIODE GZA8.2Y-BT	1
D905	407 049 6305	ZENER DIODE GZA12Y-BT	1
D906	407 049 6305	ZENER DIODE GZA12Y-BT	1
D907	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D908	407 005 2006	DIODE DS135D-KB1	1
D909	407 005 2006	DIODE DS135D-KB1	1
D910	407 005 2006	DIODE DS135D-KB1	1
D911	407 005 2006	DIODE DS135D-KB1	1
D912	407 088 6502	DIODE MPG06D-PKG3	1
D913	407 088 6502	DIODE MPG06D-PKG3	1
D914	407 049 5902	ZENER DIODE GZA11X	1
D915	407 049 5902	ZENER DIODE GZA11X	1
D916	407 050 0200	ZENER DIODE GZA24Z-BT	1
D917	407 050 5502	ZENER DIODE GZA5.6Y-BT	1
C903	403 074 2701	CERAMIC 0.047U Z 50V	1
C904	403 074 2701	CERAMIC 0.047U Z 50V	1
C905	403 074 2701	CERAMIC 0.047U Z 50V	1
C906	403 074 2701	CERAMIC 0.047U Z 50V	1
C907	403 046 0605	ELECT 2200U M 25V	1
C908	403 046 0605	ELECT 2200U M 25V	1
C909	403 042 3600	ELECT 100U M 16V	1
C910	403 042 3600	ELECT 100U M 16V	1
C911	403 046 4603	ELECT 33U M 25V	1
C912	403 046 4603	ELECT 33U M 25V	1
C913	403 043 7102	ELECT 330U M 16V	1
C914	403 043 7102	ELECT 330U M 16V	1
C915	403 049 1609	ELECT 1U M 50V	1
C916	403 069 8404	CERAMIC 0.01U Z 50V	1
C917	403 039 7901	ELECT 100U M 10V	1
C918	403 039 4504	ELECT 470U M 6.3V	1
C919	403 049 5508	ELECT 10U M 50V	1
C920	403 046 0605	ELECT 2200U M 25V	1
C921	403 046 0605	ELECT 2200U M 25V	1
C922	403 047 4305	ELECT 47U M 25V	1
C923	403 047 4305	ELECT 47U M 25V	1
C924	403 042 3600	ELECT 100U M 16V	1
C925	403 042 3600	ELECT 100U M 16V	1
C926	403 042 3600	ELECT 100U M 16V	1
C927	403 042 3600	ELECT 100U M 16V	1
C928	403 039 7901	ELECT 100U M 10V	1
C929	403 039 7901	ELECT 100U M 10V	1
C930	403 049 7304	ELECT 100U M 50V	1
C931	403 052 8107	ELECT 100U M 35V	1
C932	403 052 6905	ELECT 10U M 35V	1
C933	403 054 1304	ELECT 47U M 35V	1
C934	403 072 2703	CERAMIC 0.022U Z 50V	1
R901	401 011 8908	CARBON 1 JA 1/4W	1
R902	401 011 8908	CARBON 1 JA 1/4W	1
R903	401 063 1308	OXIDE-MT 680 JA 1W	1
R904	401 024 7400	CARBON 10K JA 1/6W	1
R905	401 017 9305	CARBON 3K JA 1/4W	1
R906	401 017 9305	CARBON 3K JA 1/4W	1
R907	401 017 9305	CARBON 3K JA 1/4W	1
R908	401 017 9305	CARBON 3K JA 1/4W	1
R909	401 054 8804	OXIDE-MT 1K JA 1/2W	1
R910	401 025 8208	CARBON 22K JA 1/6W	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
R911	401 025 8208	CARBON 22K JA 1/6W	1
R912	401 024 7707	CARBON 100K JA 1/6W	1
R913	401 024 7400	CARBON 10K JA 1/6W	1
R914	401 024 7707	CARBON 100K JA 1/6W	1
R915	401 025 8208	CARBON 22K JA 1/6W	1
R916	401 024 9008	CARBON 120 JA 1/6W	1
R917	401 024 9008	CARBON 120 JA 1/6W	1
R918	401 024 9008	CARBON 120 JA 1/6W	1
R919	401 024 9008	CARBON 120 JA 1/6W	1
R920	401 059 1800	OXIDE-MT 15 JA 1W	1
R921	402 015 4606	FUSIBLE RES 4.7 J- 1/4W	1
R922	401 056 5207	OXIDE-MT 56 JA 1/2W	1
R923	401 013 5608	CARBON 1.2K JA 1/4W	1
R924	401 024 7400	CARBON 10K JA 1/6W	1
R925	402 016 5404	FUSIBLE RES 4.7 J- 1/2W	1
R926	402 016 5404	FUSIBLE RES 4.7 J- 1/2W	1

ASSY,PCB,HEADPHONE

Ref. No.	Part No.	Description	Q'ty
43	620 201 0328	Assy,PCB,Headphone	1
	620 006 2954	VR 2X50KA	1
	620 017 2066	Jack 3P W/Boss	1
	620 022 3492	Terminal Lug	1
CA801	620 201 2407	Assy,Connector-S,3P	1
CA802	620 201 2414	Assy,Connector-S,3P	1
IC801	409 039 7309	IC NJM4556S	1
C801	403 071 6207	CERAMIC 220P K 50V	1
C802	403 071 6207	CERAMIC 220P K 50V	1
C803	403 074 2701	CERAMIC 0.047U Z 50V	1
C804	403 044 0300	ELECT 47U M 16V	1
C805	403 044 0300	ELECT 47U M 16V	1
C806	403 086 5509	NP-ELECT 2.2U M 50V	1
C807	403 086 5509	NP-ELECT 2.2U M 50V	1
C808	403 074 2701	CERAMIC 0.047U Z 50V	1
R801	401 024 7004	CARBON 1K JA 1/6W	1
R802	401 024 7004	CARBON 1K JA 1/6W	1
R803	401 012 5708	CARBON 1K JA 1/4W	1
R804	401 024 7004	CARBON 1K JA 1/6W	1
R805	401 024 9701	CARBON 12K JA 1/6W	1
R806	401 024 9701	CARBON 12K JA 1/6W	1
R807	401 027 0309	CARBON 47K JA 1/6W	1
R808	401 027 0309	CARBON 47K JA 1/6W	1
R809	401 012 4503	CARBON 100 JA 1/4W	1
R810	401 012 4503	CARBON 100 JA 1/4W	1

ASSY,PCB,FL-DISPLAY

Ref. No.	Part No.	Description	Q'ty
44	620 204 9915	Assy,PCB,FL-Display	1
	620 201 5255	Cushion,Rubber	2
	620 200 0121	Fluorescent Tube,20BT02GK	1
	620 051 8932	Spacer (LED)	2
CA501	620 201 1332	Assy,Connector-S,13P	1
CA502	620 201 1349	Assy,Connector-S,12P	1
CA503	620 201 1356	Assy,Connector-S,8P	1
CA504	620 201 1363	Assy,Connector-S,9P	1
CA505	620 201 1370	Assy,Connector-S,8P	1
CA506	620 201 1387	Assy,Connector-S,4P	1
DL501	407 062 9307	LED SLB-55VR3	1
DL502	407 062 9307	LED SLB-55VR3	1

ASSY,PCB,SWITCH,LEFT

Ref. No.	Part No.	Description	Q'ty
45	620 201 1233	Assy,PCB,Switch,Left	1
	620 198 0875	Spacer	1
CA701	620 201 1646	Assy,Connector-S,7P	1
CA702	620 201 1653	Assy,Connector-S,7P	1
CA703	620 201 1660	Assy,Connector-S,2P	1
PL702	620 030 8083	Lamp	1
SW701	620 201 2353	Switch,Tact 160G (DISPLAY)	1
SW702	620 201 2353	Switch,Tact 160G (REPEAT)	1
SW703	620 201 2353	Switch,Tact 160G (RANDOM)	1
SW704	620 201 2353	Switch,Tact 160G (MEMORY)	1
SW705	620 201 2353	Switch,Tact 160G (CLEAR)	1
SW706	620 201 2353	Switch,Tact 160G (CHECK)	1
SW707	620 201 2353	Switch,Tact 160G (DISK 1)	1
SW708	620 201 2353	Switch,Tact 160G (DISK 2)	1
SW709	620 201 2353	Switch,Tact 160G (DISK 3)	1
SW710	620 201 2353	Switch,Tact 160G (DISK 4)	1
SW711	620 201 2353	Switch,Tact 160G (DISK 5)	1
SW712	620 201 2353	Switch,Tact 160G (INTRO)	1
SW713	620 201 2353	Switch,Tact 160G (TITLE)	1
D701	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D702	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D703	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D704	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D705	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1

ASSY,PCB,SWITCH,RIGHT

Ref. No.	Part No.	Description	Q'ty
46	620 201 1240	Assy,PCB,Switch,Right	1
	620 198 0875	Spacer	1
CA601	620 201 1608	Assy,Connector-S,7P	1
CA602	620 201 1615	Assy,Connector-S,5P	1
CA603	620 201 1622	Assy,Connector-S,2P	1
PL602	620 030 8083	Lamp	1
SW601	620 201 2353	Switch,Tact 160G (EJECT 1)	1
SW602	620 201 2353	Switch,Tact 160G (EJECT 2)	1
SW603	620 201 2353	Switch,Tact 160G (EJECT 3)	1
SW604	620 201 2353	Switch,Tact 160G (EJECT 4)	1
SW605	620 201 2353	Switch,Tact 160G (EJECT 5)	1
SW606	620 201 2353	Switch,Tact 160G (SCAN FWD)	1
SW607	620 201 2353	Switch,Tact 160G (SCAN BACK)	1
SW608	620 201 2353	Switch,Tact 160G (F.FWD)	1
SW609	620 201 2353	Switch,Tact 160G (F.BACK)	1
SW610	620 201 2353	Switch,Tact 160G (STOP)	1
SW611	620 201 2353	Switch,Tact 160G (PLAY)	1
SW612	620 201 2353	Switch,Tact 160G (PAUSE)	1
Q601	405 004 5103	TR 2SA608-G-SPA-AC	1
Q602	405 004 5103	TR 2SA608-G-SPA-AC	1
D601	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D602	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D603	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D604	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D605	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D606	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D607	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D608	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
D609	407 125 8209	DIODE HSS271	1
or	407 008 0405	DIODE GMB01-BT	1
R601	401 025 8208	CARBON 22K JA 1/6W	1
R602	401 024 7400	CARBON 10K JA 1/6W	1
R603	401 027 0309	CARBON 47K JA 1/6W	1
R604	401 025 8208	CARBON 22K JA 1/6W	1
R605	401 024 7400	CARBON 10K JA 1/6W	1
R606	401 027 0309	CARBON 47K JA 1/6W	1

ASSY,PCB,POWER SWITCH

Ref. No.	Part No.	Description	Q'ty
47	620 203 9695	Assy,PCB,Power Switch	1
	620 202 3472	Terminal,Wrapper,2P	1
	620 053 6905	Cover Safety	1
SW901⚠	620 015 2358	Power Switch	1
C401 ⚠	620 006 6679	Capacitor 0.01MF400V	1

NOTES:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

CD PLAYER ADJUSTMENT PROCEDURES

BEFORE CHECKING OR ADJUSTING CD PLAYER

1. Procedures for all adjustments for the CD player from start to finish are described below.
2. If no problems are found after each item is checked when the pick-up is replaced, there is no need to adjust all items again.

SETTING OF INITIAL POSITION OF VOLUME

1. Set the variable resistors to the initial positions listed below:

VR101 (FOCUS OFFSET)	Mechanical Center
VR102 (E/F BALANCE)	Mechanical Center
VR103 (TRACKING OFFSET)	Mechanical Center
VR104 (TRACKING GAIN)	Mechanical Center
VR105 (KICK GAIN)	Mechanical Center
VR106 (FOCUS GAIN)	Mechanical Center

MASTER CLOCK CHECKING

1. Since this adjustment Sets standard time for the total system, be sure to adjust before operation.
2. Connect the frequency counter between the **IC105 (4pin)** and to **GND.**
3. Check the frequency counter reads 16.9344MHz ±300p.p.m.

PLL (VCO) FREE RUN FREQUENCY ADJUSTMENT

1. Connect the frequency counter between the **T105 (CK)** and to **GND.** (Use a 10:1 probe)
2. Push the POWER button to switch the power on and push the STOP button.
3. Adjust the OSC coil L103 using a plastic screwdriver until the frequency counter indicator reads 4.3218MHz ±10kHz.

DSP SYSTEM CLOCK CHECKING

1. Connect the frequency counter between the test point **X IN** (IC YM3815) of **R362** lead and to **GND.**
2. Check the frequency counter reads 8.6436MHz.

FOCUS OFFSET ADJUSTMENT

1. Push the POWER button to switch the power on and push the DISC EJECT button to open the Disc Tray and remove the disc.
2. Push the DISC EJECT button to close the Disc Tray and push the STOP button.
3. Connect a DC Voltmeter to the **T103 (FEO)** and to **GND.**
4. In this condition check that the DC Voltmeter indicator is in the range 0V±20mV, and adjust VR101 if it is not.

TRACKING OFFSET ADJUSTMENT

1. Push the POWER button to switch the power on and push the STOP button.
2. Connect a DC Voltmeter to the **T101 (T-COIL)** and to **GND.**
3. In this condition check that the DC Voltmeter indicator is in the range 0V±50mV, and adjust VR103 if it is not.

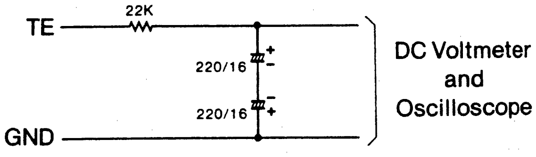
NOTE:
Perform this adjustment once again after adjusting the E/F BALANCE and TRACKING GAIN signals.

CONFIRMING HF LEVEL

1. PLAY the fourth item on the test disc (Modern Wave Ⅱ).
2. Connect an oscilloscope to the **T104 (HF)** pin, and check that its HF level is in the range 2.6±0.5V(p-p).
3. If the results of the above procedure are not satisfactory, the Pick-up is damaged.

E/F BALANCE ADJUSTMENT

1. Place the test disc (Modern Wave Ⅱ) on the Disc Tray, and play the fourth item on the disc. Short the test point **TP TEST** pins on the µ-con Control P.C.Board to the TEST mode.
2. Short the **T102 (TROF)** pin to **GND** to turn tracking servo OFF.
3. Connect a DC Voltmeter and an oscilloscope via the low-pass filter like that shown in the illustration below to the test terminal **T102 (TE)**(tracking error) pin.



4. Adjust VR102 so that the DC Voltmeter reading is 0V±45mV (oscilloscope waveform is symmetric to + and − about the zero level).

CD PLAYER ADJUSTMENT PROCEDURES (Continued)

FOCUS GAIN ADJUSTMENT

1. Apply VR106 to the position of Mechanical center position, and place the test disc (Modern Wave Ⅱ) on the Disc Tray.
2. Push the POWER button to switch the power on and PLAY the first item on the test disc. Now apply a signal of 1kHz and 0.3Vp-p from the signal generator to the **T101 (F+)** and oscilloscope (CH1).
3. Connect an oscilloscope (CH2) to the **T101 (F−)** pin and to **GND.**
4. Set the oscilloscope to X-Y operation, and while observing the lissajous waveform adjust VR106 to the point where the phase difference is 90° as shown in Fig. 1 below.

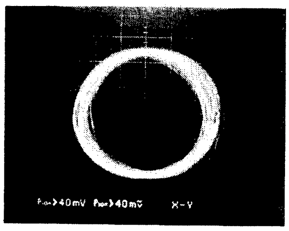
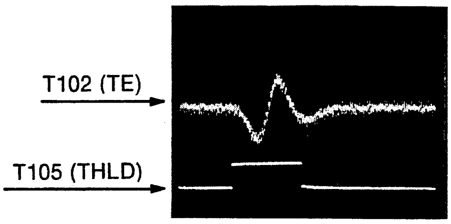


Fig.1

KICK GAIN ADJUSTMENT

1. Place the test disc (Modern Wave Ⅱ) on the Disc Tray.
2. Set the oscilloscope to NORMAL TRIG., set the EXT TRIG. pin to external trigger, and input the trigger fro test point **T105 (THLD)** pin to the oscilloscope.
3. Next connect test point **T102 (TE)** pin to Channel 1 of th oscilloscope.
4. Push the POWER button to switch the power on and PLA the first item on the test disc, and the push the PAUS button. Now observe the waveform for TE with trigge applied from test point **T105 (THLD)** pin. At this point, ad just VR105 so that a kick pulse waveform of about 1 to 1. tracks as shown in Fig. 2 below is obtained.



Fi

TRACKING GAIN ADJUSTMENT

1. Apply VR104 to the position of Mechanical center position, and place the test disc (Modern Wave Ⅱ) on the Disc Tray.
2. Push the POWER button to switch the power on and PLAY the first item on the test disc. Now apply a signal of 1250Hz and 0.3Vp-p from the signal generator to the **T105 (T+)** and oscilloscope (CH1).
3. Connect an oscilloscope (CH2) to the **T101 (T−)** pin and to **GND.**
4. Set the oscilloscope to X-Y operation, and while observing the lissajous waveform adjust VR104 to the point where the phase difference is 90° as shown in Fig. 1 above.

NOTE:
If these two adjustments are performed, the TRACKING OFFSET must also be adjusted.

IC & TRANSISTOR DC VOLTAGES

IC PIN NUMBERS DC VOLTAGES																					
Ref. No.	**DEVICE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
IC101	LA9200NM	0V	0V	0V	0V	0V	0V	0V	8.0V	0V	0V	0V	0V	0V	0V	0V	4.2V	4.0V	4.2V	-5.0V	1.2V
		21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
		5.0V	2.0V	2.0V	2.0V	0V	2.4V	0V	2.4V	1.2V	0V	0.4V	0.2V	0.1V	1.0V	0V	-0.1V	0V	0V	8.2V	5.0V
		41	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**
		0V	0V	-5.0V	0V	0V	0V	0V	0V	–	–	–	–	–	–	–	–	–	–	–	–

IC PIN NUMBERS DC VOLTAGES																					
Ref. No.	**DEVICE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
IC102	YM3815-H	5.0V	2.7V	2.1V	2.4V	0V	2.0V	2.0V	2.0V	0V	0V	0V	0V	0V	4.2V	0V	4.0V	4.2V	4.8V	0V	5.0V
		21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
		0V	0V	0V	5.0V	0.5V	0V	1.5V	1.4V	0.2V	0V	0.2V	5.0V	5.0V	1.5V	0V	0V	0V	5.0V	5.0V	2.4V
		41	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**
		0V	2.3V	2.3V	2.3V	2.3V	2.3V	2.3V	2.3V	2.2V	2.7V	4.6V	2.7V	1.5V	1.5V	0.9V	0.9V	3.9V	4.0V	4.0V	1.1V
		61	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**	**71**	**72**	**73**	**74**	**75**	**76**	**77**	**78**	**79**	**80**
		0.7V	0.7V	3.2V	3.1V	0V	1.5V	1.5V	1.6V	4.7V	1.7V	1.8V	1.8V	1.8V	1.8V	1.9V	1.8V	1.9V	1.9V	1.9V	1.6V

IC PIN NUMBERS DC VOLTAGES																					
Ref. No.	**DEVICE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
IC103	LC3517AM-15	2.4V	2.4V	2.4V	2.3V	2.3V	2.3V	2.4V	2.3V	4.2V	0.6V	4.0V	0V	4.0V	3.9V	0.9V	1.0V	0.9V	0V	–	2.8V
		21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
		4.6V	2.5V	2.3V	5.0V	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
IC104	YM3613C	5.0V	0V	2.1V	1.5V	1.1V	4.3V	2.1V	1.8V	2.4V	0V	4.3V	0V	5.0V	0V	0V	0V	3.2V	2.4V	1.5V	1.7V
		21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
		0V	0V	1.3V	4.3V	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

IC PIN NUMBERS DC VOLTAGES																	
Ref. No.	**DEVICE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
IC105	PD0050	2.3V	2.4V	5.0V	2.0V	2.4V	0V	1.9V	0V	0V	2.4V	0V	0V	5.0V	3.3V	2.1V	5.0V
IC106	TC4075B	0V	0V	5.0V	0V	0V	4.9V	0V	5.0V	5.0V	0V	0V	0V	0V	5.0V	–	–
IC107	TC4049BP	5.0V	5.0V	9.5V	5.0V	9.6V	5.0V	9.7V	0V	0V	4.9V	5.0V	0V	0V	5.0V	0V	0V

IC PIN NUMBERS DC VOLTAGES									
Ref. No.	**DEVICE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
IC108	NJM4558	0.5V	0V	0V	-10.5V	0V	0V	0V	10.3V
IC109	NJM4558	0.4V	0V	0V	-10.5V	0V	0V	0V	10.3V
IC110	NJM4558	0V	0V	0V	-10.5V	0V	0V	0V	10.3V
IC111	NJM4558	0.5V	0V	0V	-10.5V	0V	0V	-0.6V	10.3V
IC112	STA341M	10.3V	-0.6V	0.5V	0.5V	-10.5V	-8.4V	0V	0V

IC PIN NUMBERS DC VOLTAGES																					
Ref. No.	**DEVICE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
IC113	M50754	0V	4.8V	4.8V	4.8V	4.8V	4.8V	4.8V	4.8V	4.8V	0.6V	4.8V	4.8V	4.8V	4.8V	4.7V	4.7V	4.6V	4.6V	4.6V	4.8V
		21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
		0V	4.5V	-4.8V	1.7V	2.9V	4.3V	0V	5.0V	0V	0V	2.8V	2.8V	2.6V	2.6V	-26.0V	4.9V	4.9V	-20.2V	-20.5V	-20.5V
		41	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**
		-20.6V	-20.7V	-20.8V	-21.2V	-21.3V	0.4V	-24.1V	-24.3V	-24.3V	-24.4V	-25.8V	-25.8V	-25.8V	-25.3V	4.9V	4.9V	-25.1V	-22.4V	-22.2V	-22.1V
		61	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**	**71**	**72**	**73**	**74**	**75**	**76**	**77**	**78**	**79**	**80**
		-22.0V	-22.0V	5.0V	5.0V	0V	5.0V	5.0V	0V	5.0V	5.0V	5.0V	1.0V	–	–	–	–	–	–	–	–

IC PIN NUMBERS DC VOLTAGES																					
Ref. No.	**DEVICE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
IC114	LC3517BML	4.9V	4.9V	0.8V	0.8V	4.9V	4.9V	4.9V	4.9V	4.9V	4.9V	4.9V	0V	4.8V	4.8V	4.8V	4.8V	4.8V	0V	5.0V	5.0V
		21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
		5.0V	5.0V	5.0V	4.4V	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

IC PIN NUMBERS DC VOLTAGES																					
Ref. No.	**DEVICE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
IC115	LC74HC241	4.9V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	2.4V	0V	2.4V	0V	2.3V	0V	2.4V	5.0V	5.0V
IC116	LA6510	0V	0V	0V	0V	-14.8V	0V	0V	0V	0V	14.0V	–	–	–	–	–	–	–	–	–	–

IC & TRANSISTOR DC VOLTAGES (Continued)

		IC PIN NUMBERS DC VOLTAGES																			
Ref. No.	**DEVICE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
IC117	LC6538D	−17.0V	−25.6V	−23.2V	−23.1V	−23.1V	−23.1V	−23.1V	−22.0V	−23.1V	−19.8V	−23.1V	−23.1V	−23.1V	−23.1V	5.0V	1.7V	2.7V	0V	0V	4.8V
		21	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
		1.5V	1.8V	0V	0V	0V	0V	0V	0V	2.5V	5.0V	0.2V	0V	0V	0V	4.9V	4.4V	0V	0V	0V	0V
		41	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**	**59**	**60**
		0V	0V	5.0V	4.9V	0V	4.6V	4.9V	4.9V	4.9V	4.0V	0V	0V	0V	−6.0V	0.5V	−6.1V	−19.4V	0.3V	−6.3V	−6.2V
		61	**62**	**63**	**64**	**65**	**66**	**67**	**68**	**69**	**70**	**71**	**72**	**73**	**74**	**75**	**76**	**77**	**78**	**79**	**80**
		−19.3V	−26.0V	−15.8V	−13.6V	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−	−

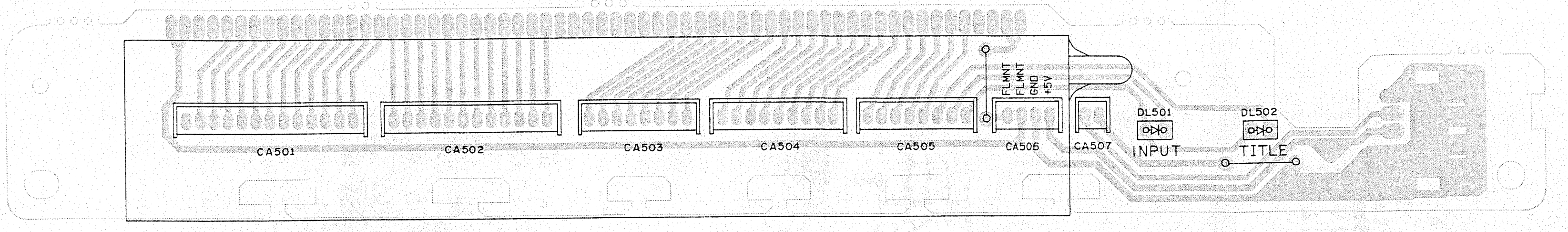
		IC PIN NUMBERS DC VOLTAGES															
Ref. No.	**DEVICE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
IC118	TC74HCU04P	4.6V	0V	0V	5.0V	0V	5.0V	0V	0V	4.8V	0V	5.0V	5.0V	0V	5.0V	−	−
IC119	LA6501-LR	0V	0V	−14.9V	0V	14.0V	−	−	−	−	−	−	−	−	−	−	−
IC123,124	PCM56P	−12.1V	0V	12.1V	0.7V	2.2V	3.3V	0V	−11.7V	0V	0V	0V	0V	0V	−9.6V	−4.7V	12.2V
IC128,129	NJM4558D-D	0V	0V	0V	−12.2V	0V	0V	0V	12.3V	−	−	−	−	−	−	−	−

		IC PIN NUMBERS DC VOLTAGES							
Ref. No.	**DEVICE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
IC801	NJM4556S	12.1V	0V	0V	0V	−12.1V	0V	0V	0V

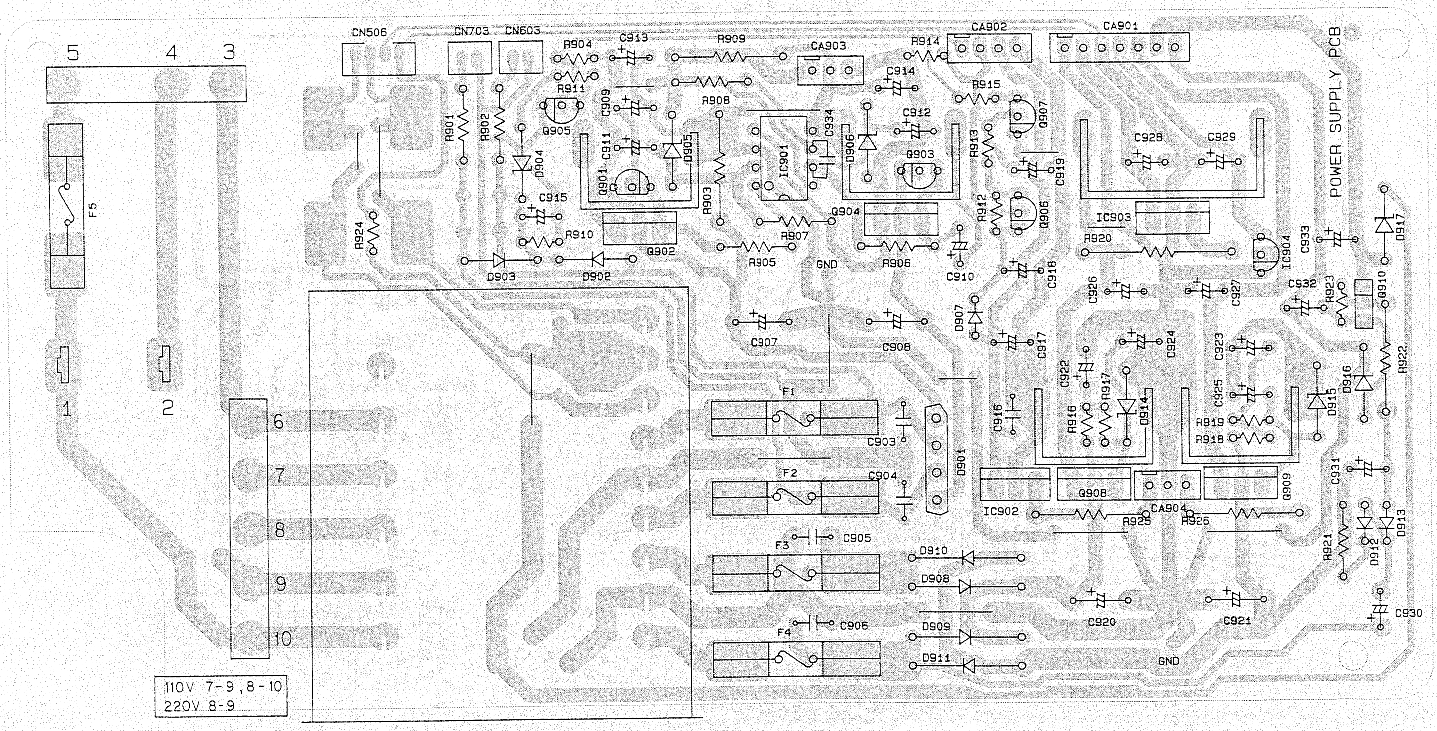
		IC PIN NUMBERS DC VOLTAGES							
Ref. No.	**DEVICE**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
IC901	NJM2043DD	0V	0V	0V	−12.3V	0V	0V	−1.2V	12.3V
IC902	NJM78M05FA	5.0V	0V	14.1V	−	−	−	−	−
IC903	NJM78M05FA	5.0V	0V	7.5V	−	−	−	−	−
IC904	TA79L005P	−5.0V	−10.5V	0V	−	−	−	−	−

		TRANSISTOR DC VOLTAGES							
Ref. No.	**DEVICE**	**B**	**C**	**E**	**Ref. No.**	**DEVICE**	**B**	**C**	**E**
Q901	2SK246	17.4V	12.9V	12.9V	Q906	2SA608	4.8V	−7.6V	4.9V
Q902	2SD1913	12.9V	17.4V	12.3V	Q908	2SD1913	11.0V	14.1V	10.3V
Q903	2SK246	−12.9V	−17.6V	−17.6V	Q909	2SB1274	−11.1V	−14.9V	−10.5V
Q904	2SB1274	−12.9V	−17.6V	−12.3V	Q910	2SB911	−26.5V	−36.7V	−26.0V

FL P.C.BOARD
(BOTTOM VIEW)


CA501
CA502
CA503
CA504
CA505
CA506
CA507
FLMNT
FLMNT
GND
+5V
DL501
INPUT
DL502
TITLE

TRANS P.C.BOARD
(BOTTOM VIEW)


5
4
3
F5
1
2
6
7
8
9
10
110V 7-9,8-10
220V 8-9
CN506
CN703
CN603
CA902
CA901
CA903
CA904
POWER SUPPLY PCB
IC901
IC902
IC903
IC904
Q901
Q902
Q903
Q904
Q905
Q906
Q907
Q908
Q909
Q910
F1
F2
F3
F4
D901
D902
D903
D904
D905
D906
D907
D908
D909
D910
D911
D912
D913
D914
D915
D916
D917
C903
C904
C905
C906
C907
C908
C909
C910
C911
C912
C913
C914
C915
C916
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C924
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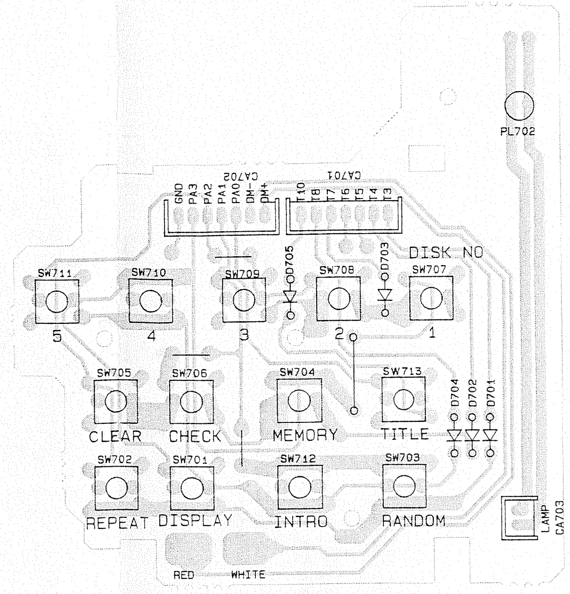
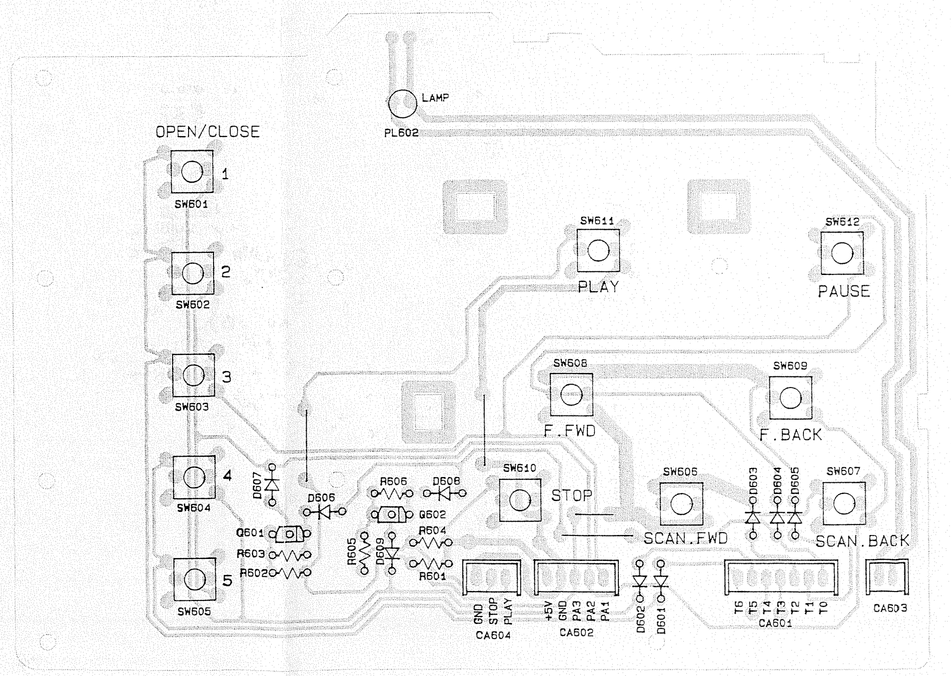
C927
C928
C929
C930
C931
C932
C933
C934
R901
R902
R903
R904
R905
R906
R907
R908
R909
R910
R911
R912
R913
R914
R915
R916
R917
R918
R919
R920
R921
R922
R923
R924
R925
R926
GND

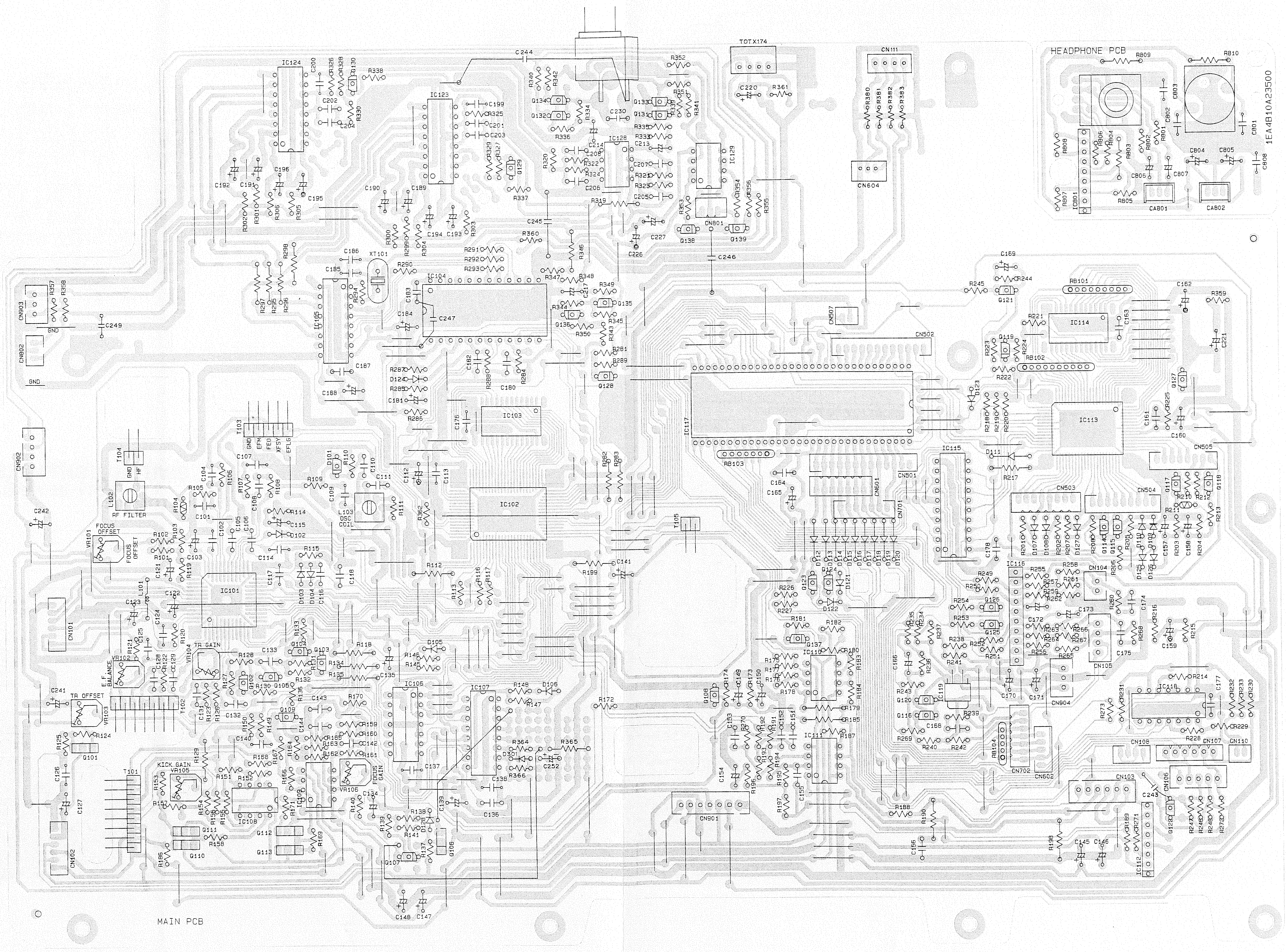
SWITCH LEFT P.C.BOARD
(BOTTOM VIEW)


PL702
CA702
GND
PA3
PA2
PA1
PA0
DM-
DM+
CA701
T10
T8
T7
T6
T5
T4
T3
DISK NO
SW711
SW710
SW709
SW708
SW707
D705
D703
5
4
3
2
1
SW705
SW706
SW704
SW713
D704
D702
D701
CLEAR
CHECK
MEMORY
TITLE
SW702
SW701
SW712
SW703
REPEAT
DISPLAY
INTRO
RANDOM
LAMP
CA703
RED
WHITE

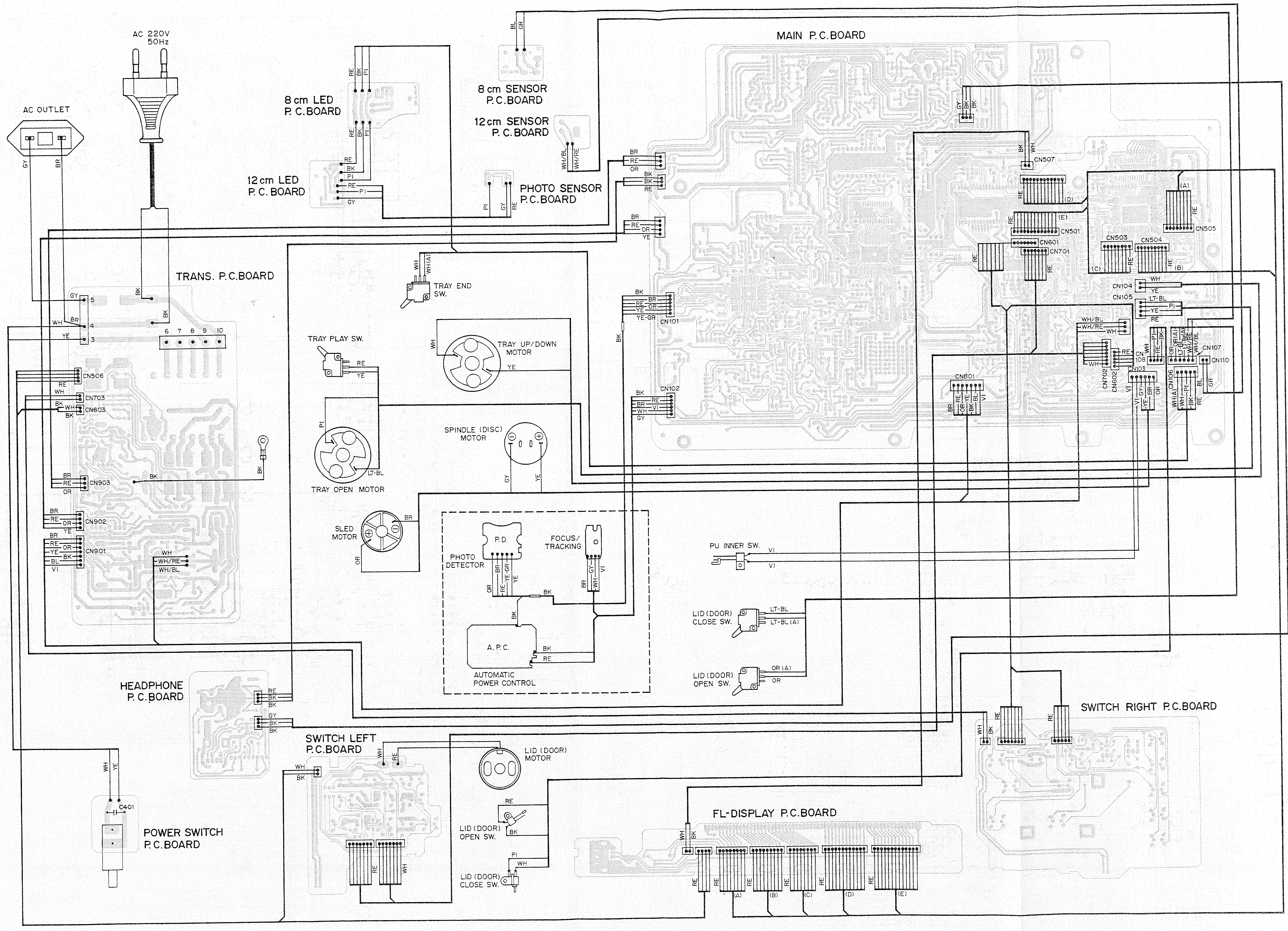
SWITCH RIGHT P.C.BOARD
(BOTTOM VIEW)


LAMP
PL602
OPEN/CLOSE
1
SW601
2
SW602
3
SW603
4
SW604
5
SW605
SW611
PLAY
SW612
PAUSE
SW608
F.FWD
SW609
F.BACK
SW610
STOP
SW606
SCAN.FWD
SW607
SCAN.BACK
D607
D606
R606
D608
Q602
Q601
R603
R602
R605
D609
R604
R601
D603
D604
D605
GND
STOP
PLAY
CA604
+5V
GND
PA3
PA2
PA1
CA602
D602
D601
T6
T5
T4
T3
T2
T1
T0
CA601
CA603

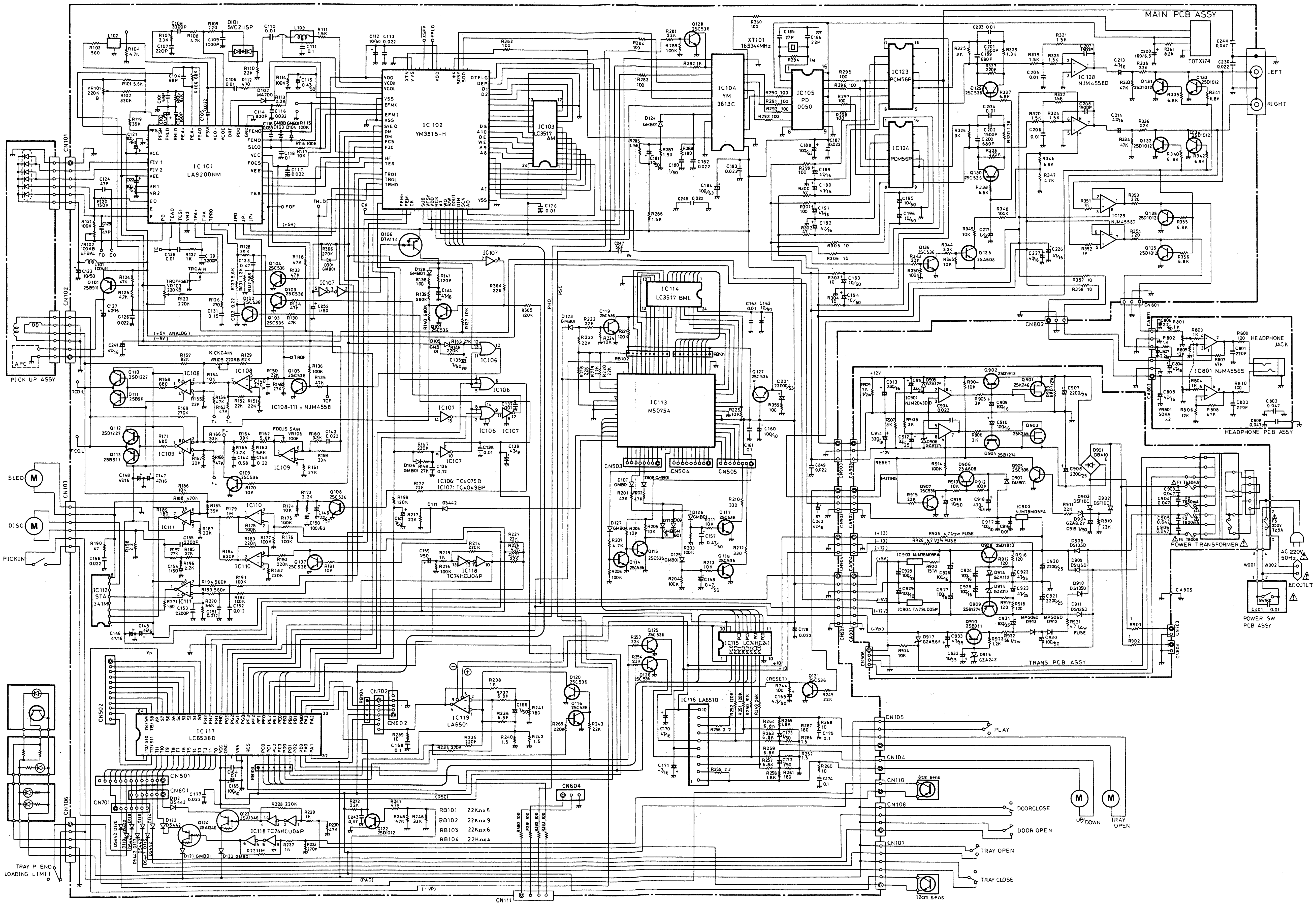
MAIN P.C.BOARD & HEADPHONE P.C.BOARD
(BOTTOM VIEW)


HEADPHONE PCB
1EA4B10A23500
MAIN PCB
RF FILTER
FOCUS OFFSET
TR OFFSET
TR GAIN
KICK GAIN
FOCUS GAIN
E.F. BALANCE
OSC COIL
TOTX174
IC101
IC102
IC103
IC104
IC113
IC114
IC117
IC123
IC124
CN111
CN604
CN502
CN901
GND

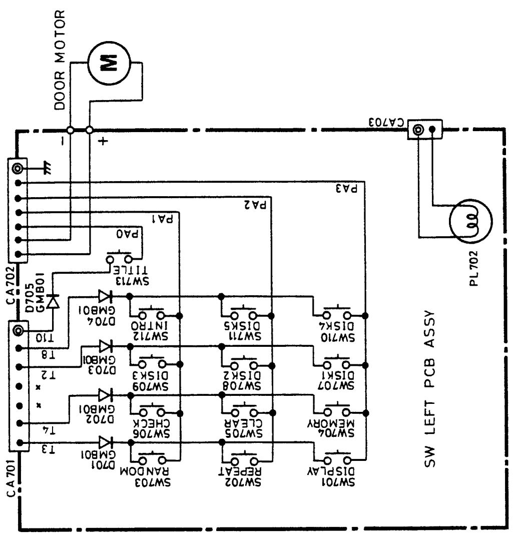
WIRING DIAGRAM

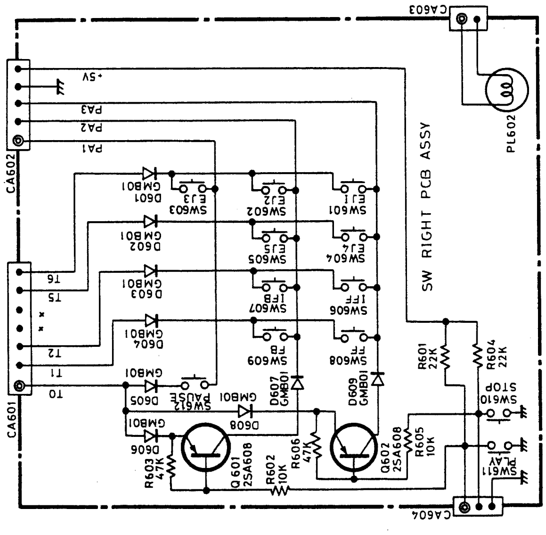

AC OUTLET
AC 220V 50Hz
8 cm LED P.C.BOARD
12cm LED P.C.BOARD
8 cm SENSOR P.C.BOARD
12cm SENSOR P.C.BOARD
PHOTO SENSOR P.C.BOARD
MAIN P.C.BOARD
TRANS. P.C.BOARD
TRAY END SW.
TRAY PLAY SW.
TRAY UP/DOWN MOTOR
SPINDLE (DISC) MOTOR
TRAY OPEN MOTOR
SLED MOTOR
P.D.
PHOTO DETECTOR
FOCUS/TRACKING
A.P.C.
AUTOMATIC POWER CONTROL
PU INNER SW.
LID (DOOR) CLOSE SW.
LID (DOOR) OPEN SW.
HEADPHONE P.C.BOARD
SWITCH LEFT P.C.BOARD
LID (DOOR) MOTOR
POWER SWITCH P.C.BOARD
C401
FL-DISPLAY P.C.BOARD
SWITCH RIGHT P.C.BOARD
CN506
CN703
CN603
CN903
CN902
CN901
CN101
CN102
CN507
CN501
CN601
CN701
CN503
CN504
CN505
CN104
CN105
CN107
CN110
CN108
CN103
CN106
CN702
CN602
CN801
(A)
(B)
(C)
(D)
(E)

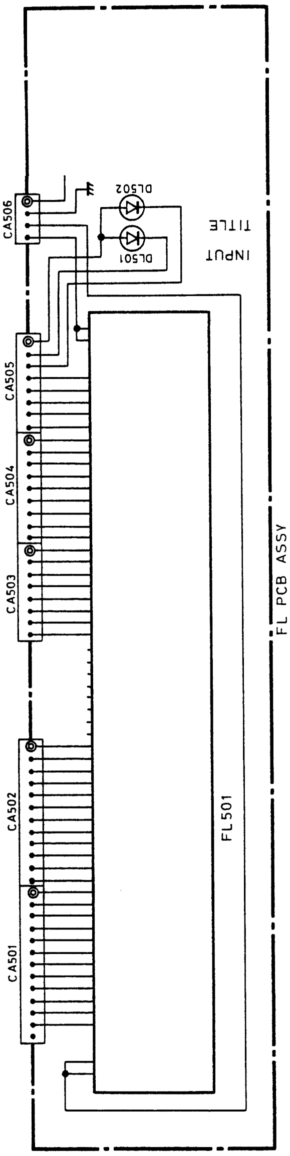
SCHEMATIC DIAGRAM (1)


MAIN PCB ASSY
PICK UP ASSY
APC
SLED
DISC
PICKIN
TRAY P END
LOADING LIMIT
IC101 LA9200NM
IC102 YM3815-H
IC103 LC3517 AM
IC104 YM 3613C
IC105 PD 0050
IC123 PCM56P
IC124 PCM56P
IC128 NJM4558D
IC129 NJM4558D
IC113 M50754
IC114 LC3517 BML
IC115 LC74HC241
IC116 LA6510
IC117 LC6538D
IC118 TC74HCU04P
IC119 LA6501
IC112 STA 341M
IC106 TC4075B
IC107 TC4049BP
IC108-111 : NJM4558
IC801 NJM4556S
IC902 NJM78M05FA
IC903 NJM78M05FA
IC904 TA79L005P
XT101 16.9344MHz
KICKGAIN
FOCUS GAIN
TRGAIN
TROFFSET
CN101
CN102
CN103
CN104
CN105
CN106
CN107
CN108
CN110
CN111
CN501
CN502
CN503
CN504
CN505
CN601
CN602
CN604
CN701
CN702
CN801
CN802
CA801
CA802
CA901
CA902
CA903
CA904
CA905
CN703
CN803
LEFT
RIGHT
TOTX174
HEADPHONE JACK
HEADPHONE PCB ASSY
TRANS PCB ASSY
POWER TRANSFORMER
POWER SW PCB ASSY
AC 220V 50Hz
AC OUTLET
FUSE
RESET
MUTING
PLAY
8cm sens
12cm sens
DOORCLOSE
DOOR OPEN
TRAY OPEN
TRAY CLOSE
UP/DOWN
TRAY OPEN
RB101 22KΩx8
RB102 22KΩx9
RB103 22KΩx6
RB104 22KΩx4

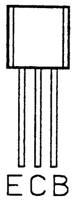
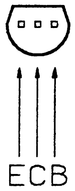
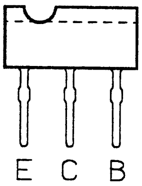
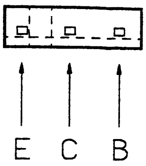
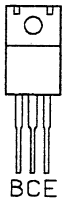
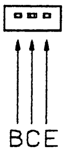
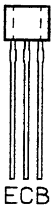
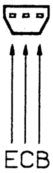
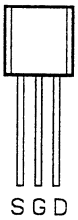
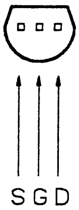
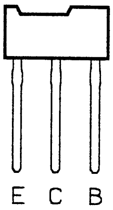
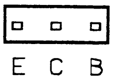
SCHEMATIC DIAGRAM (2)


DOOR MOTOR
M
CA703
PL702
SW LEFT PCB ASSY
CA702
CA701
D705 GMB01
SW713 TITLE
PA0
PA1
PA2
PA3
SW712 INTRO
SW711 DISK5
SW710 DISK4
SW709 DISK3
SW708 DISK2
SW707 DISK1
SW706 CHECK
SW705 CLEAR
SW704 MEMORY
SW703 RANDOM
SW702 REPEAT
SW701 DISPLAY
D704 GMB01
D703 GMB01
D702 GMB01
D701 GMB01
T10
T8
T2
T4
T3


CA603
PL602
SW RIGHT PCB ASSY
CA602
CA601
CA604
+5V
PA3
PA2
PA1
SW601 EJ1
SW602 EJ2
SW603 EJ3
SW604 EJ4
SW605 EJ5
SW606 1FF
SW607 1FB
SW608 FF
SW609 FB
SW610 STOP
SW611 PLAY
SW612 PAUSE
D601 GMB01
D602 GMB01
D603 GMB01
D604 GMB01
D605 GMB01
D606 GMB01
D607 GMB01
D608 GMB01
D609 GMB01
Q601 2SA608
Q602 2SA608
R601 22K
R602 10K
R603 47K
R604 22K
R605 10K
R606 47K
T0
T1
T2
T5
T6


CA506
DL501
DL502
INPUT
TITLE
CA505
CA504
CA503
CA502
CA501
FL501
FL PCB ASSY

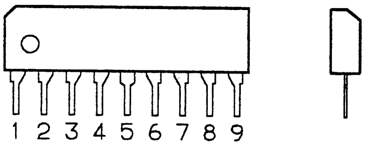
IC & TRANSISTOR LEAD IDENTIFICATION

TRANSISTOR	FRONT VIEW	BOTTOM VIEW	TRANSISTOR	FRONT VIEW	BOTTOM VIEW
2SA608 2SC536			DTA114		
2SB1274 2SD1913			2SA1317 2SA1346 2SA608 2SD1012		
2SK246			2SB911 2SD1227		

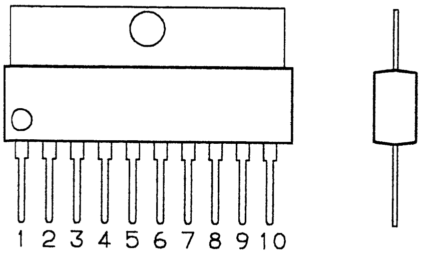
TERMINAL NAME

B → BASE	S → SOURCE
C → COLLECTOR	G → GATE
E → EMITTER	D → DRAIN

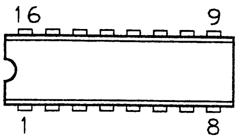
NJM4556S FRONT/SIDE VIEWS



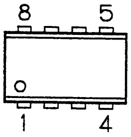
LA6510 FRONT/SIDE VIEWS


1 2 3 4 5 6 7 8 9 10

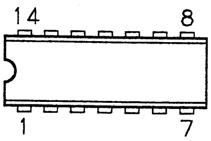
TC4049BP TOP VIEW



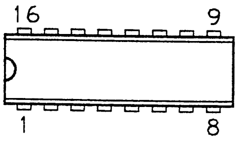
NJM2043DD TOP VIEW
NJM4558 TOP VIEW



TC4075B TOP VIEW
TC74HCU04P TOP VIEW

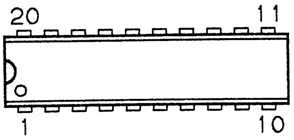


PCM56P TOP VIEW
PD0050 TOP VIEW

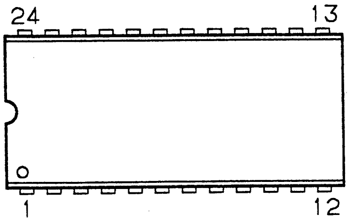


IC & TRANSISTOR LEAD IDENTIFICATION (Continued)

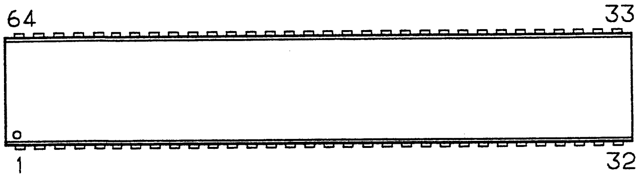
LC74HC241 TOP VIEW



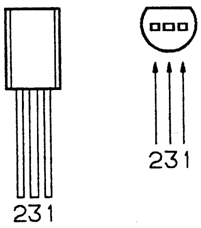
YM3613C TOP VIEW



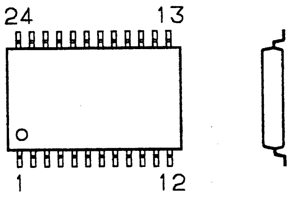
LC6538D-4130 TOP VIEW



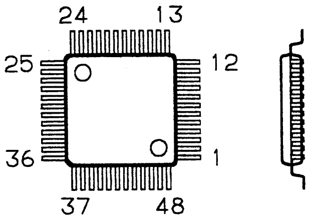
TA79L005P FRONT/SIDE VIEWS



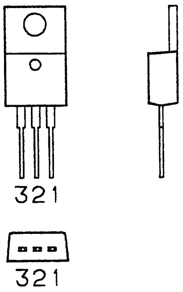
LC3517AM-15 TOP/SIDE VIEWS
LC3517BML-15 TOP/SIDE VIEWS



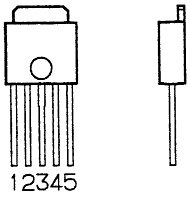
LA9200NM TOP/SIDE VIEWS


24
13
25
12
36
1
37
48

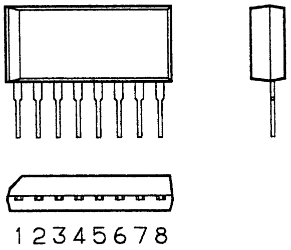
NJM78M05FA FRONT/SIDE VIEWS



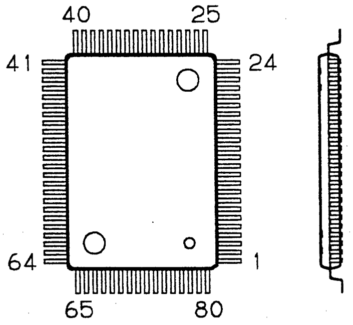
LA6501-LR FRONT/SIDE VIEWS



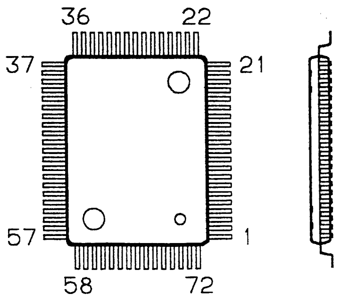
STA341M FRONT/SIDE VIEWS



YM3815-H TOP/SIDE VIEWS

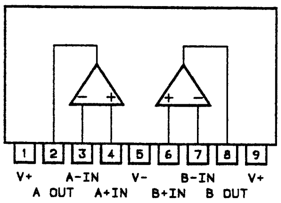

40
25
41
24
64
1
65
80

M50754-156FP TOP/SIDE VIEWS

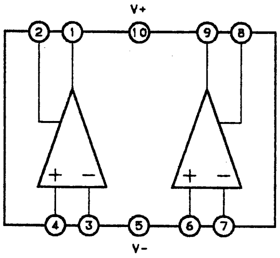

36
22
37
21
57
1
58
72

IC BLOCK DIAGRAM

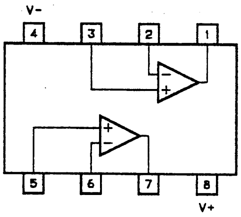
NJM4556S BLOCK DIAGRAM


1 2 3 4 5 6 7 8 9
V+
A OUT
A-IN
A+IN
V-
B+IN
B-IN
B OUT
V+

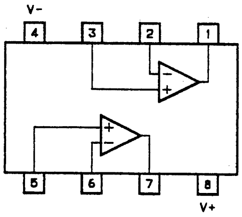
LA6510 BLOCK DIAGRAM


V+
2 1 10 9 8
4 3 5 6 7
V-

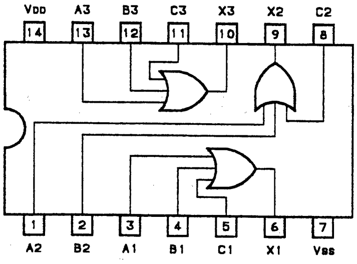
NJM2043DD BLOCK DIAGRAM


V-
4 3 2 1
5 6 7 8
V+

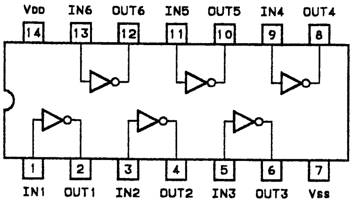
NJM4558 BLOCK DIAGRAM


V-
4 3 2 1
5 6 7 8
V+

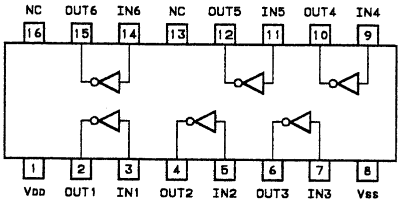
TC4075B BLOCK DIAGRAM


VDD A3 B3 C3 X3 X2 C2
14 13 12 11 10 9 8
1 2 3 4 5 6 7
A2 B2 A1 B1 C1 X1 Vss

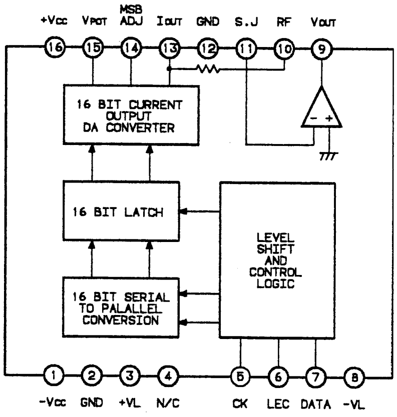
TC74HCU04P BLOCK DIAGRAM


VDD IN6 OUT6 IN5 OUT5 IN4 OUT4
14 13 12 11 10 9 8
1 2 3 4 5 6 7
IN1 OUT1 IN2 OUT2 IN3 OUT3 Vss

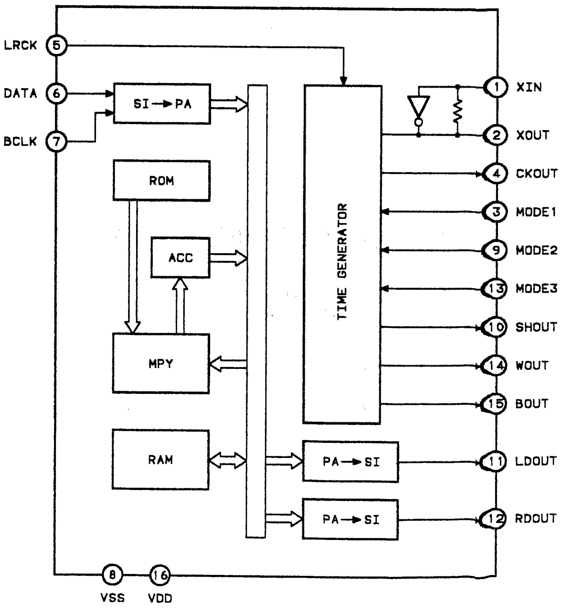
TC4049BP BLOCK DIAGRAM


NC OUT6 IN6 NC OUT5 IN5 OUT4 IN4
16 15 14 13 12 11 10 9
1 2 3 4 5 6 7 8
VDD OUT1 IN1 OUT2 IN2 OUT3 IN3 Vss

PCM56P BLOCK DIAGRAM

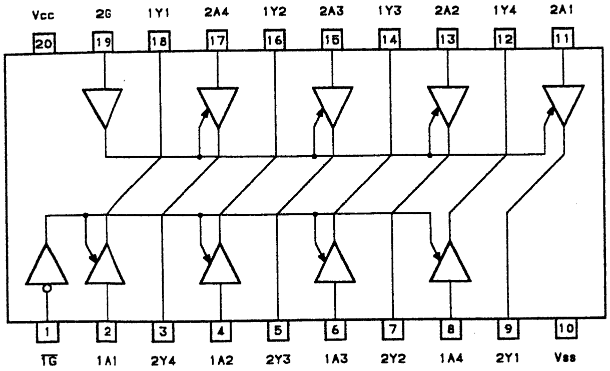

+Vcc
VPOT
MSB ADJ
IOUT
GND
S.J
RF
VOUT
16 15 14 13 12 11 10 9
16 BIT CURRENT OUTPUT DA CONVERTER
16 BIT LATCH
16 BIT SERIAL TO PALALLEL CONVERSION
LEVEL SHIFT AND CONTROL LOGIC
1 2 3 4 5 6 7 8
-Vcc
GND
+VL
N/C
CK
LEC
DATA
-VL

PD0050 BLOCK DIAGRAM


LRCK 5
DATA 6
BCLK 7
SI→PA
ROM
ACC
MPY
RAM
TIME GENERATOR
PA→SI
PA→SI
1 XIN
2 XOUT
4 CKOUT
3 MODE1
9 MODE2
13 MODE3
10 SHOUT
14 WOUT
15 BOUT
11 LDOUT
12 RDOUT
8 VSS
16 VDD

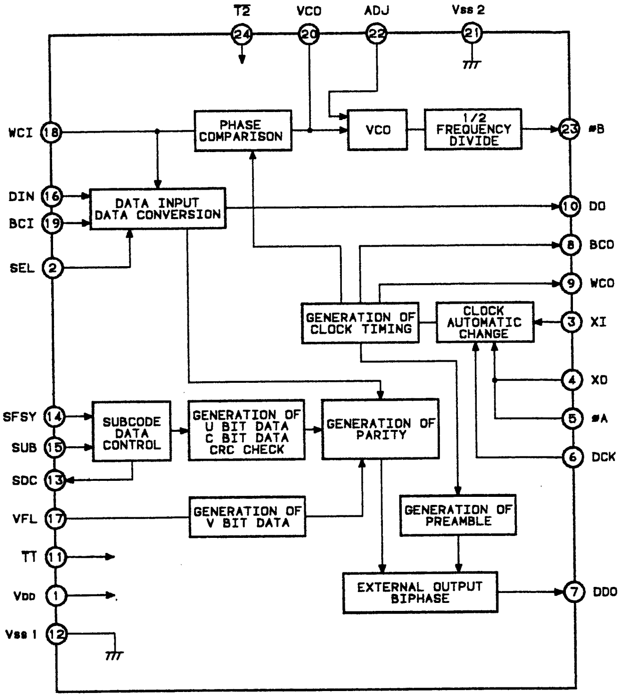
IC BLOCK DIAGRAM (Continued)

LC74HC241 BLOCK DIAGRAM



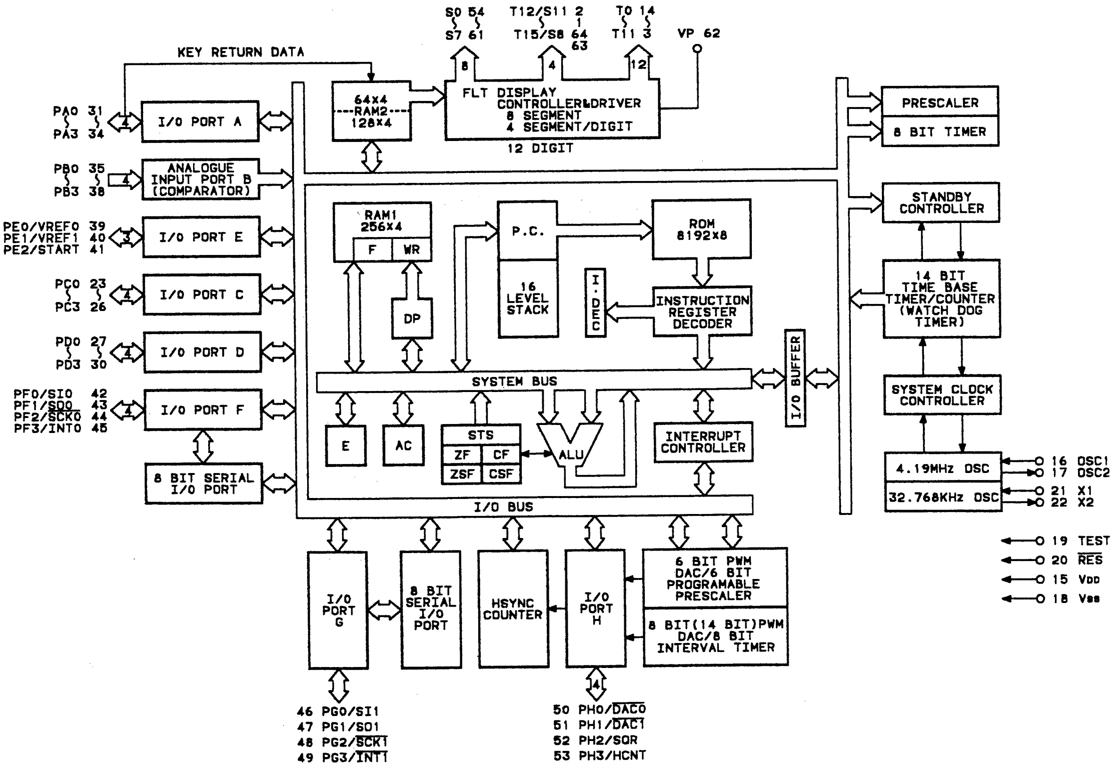
Vcc
2G
1Y1
2A4
1Y2
2A3
1Y3
2A2
1Y4
2A1
20
19
18
17
16
15
14
13
12
11
1
2
3
4
5
6
7
8
9
10
1G
1A1
2Y4
1A2
2Y3
1A3
2Y2
1A4
2Y1
Vss

YM3613C BLOCK DIAGRAM



T2
VCO
ADJ
Vss 2
24
20
22
21
WCI
18
PHASE COMPARISON
VCO
1/2 FREQUENCY DIVIDE
23
øB
DIN
16
BCI
19
DATA INPUT DATA CONVERSION
10
DO
SEL
2
8
BCO
9
WCO
GENERATION OF CLOCK TIMING
CLOCK AUTOMATIC CHANGE
3
XI
4
XO
SFSY
14
SUB
15
SUBCODE DATA CONTROL
GENERATION OF U BIT DATA C BIT DATA CRC CHECK
GENERATION OF PARITY
5
øA
6
DCK
SDC
13
VFL
17
GENERATION OF V BIT DATA
GENERATION OF PREAMBLE
TT
11
VDD
1
EXTERNAL OUTPUT BIPHASE
7
DDO
Vss 1
12

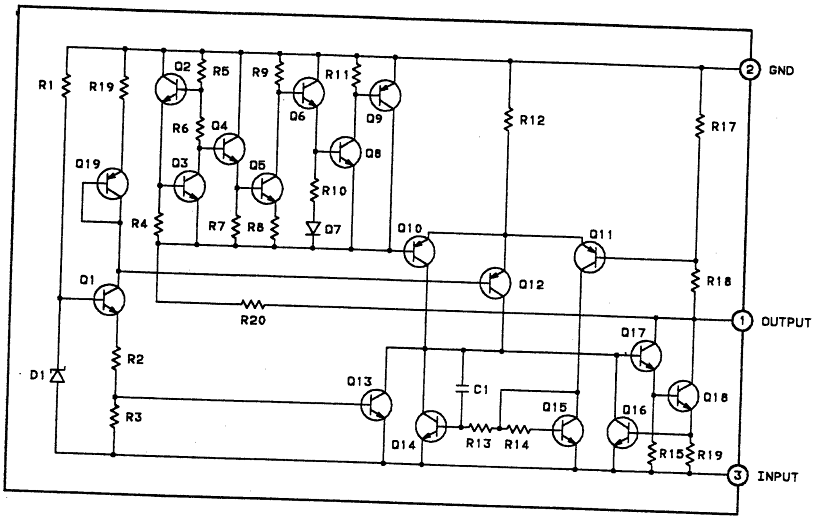
LC6538D-4130 BLOCK DIAGRAM



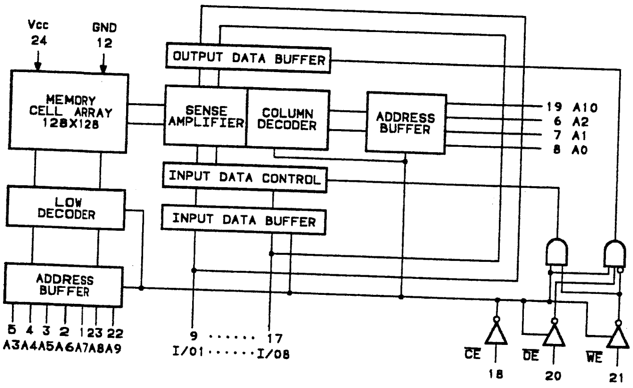
S0 54
S7 61
T12/S11 2
T15/S8 64
63
T0 14
T11 3
VP 62
KEY RETURN DATA
8
4
12
64x4 RAM2 128x4
FLT DISPLAY CONTROLLER&DRIVER
8 SEGMENT
4 SEGMENT/DIGIT
12 DIGIT
PA0 31
PA3 34
4
I/O PORT A
PB0 35
PB3 38
4
ANALOGUE INPUT PORT B (COMPARATOR)
PE0/VREF0 39
PE1/VREF1 40
PE2/START 41
3
I/O PORT E
PC0 23
PC3 26
4
I/O PORT C
PD0 27
PD3 30
4
I/O PORT D
PF0/SI0 42
PF1/SO0 43
PF2/SCK0 44
PF3/INT0 45
4
I/O PORT F
8 BIT SERIAL I/O PORT
RAM1 256x4
F
WR
DP
P.C.
16 LEVEL STACK
I-DEC
ROM 8192x8
INSTRUCTION REGISTER DECODER
SYSTEM BUS
I/O BUFFER
E
AC
STS
ZF
CF
ZSF
CSF
ALU
INTERRUPT CONTROLLER
I/O BUS
PRESCALER
8 BIT TIMER
STANDBY CONTROLLER
14 BIT TIME BASE TIMER/COUNTER (WATCH DOG TIMER)
SYSTEM CLOCK CONTROLLER
4.19MHz OSC
32.768KHz OSC
16 OSC1
17 OSC2
21 X1
22 X2
19 TEST
20 RES
15 VDD
18 Vss
I/O PORT G
8 BIT SERIAL I/O PORT
HSYNC COUNTER
I/O PORT H
6 BIT PWM DAC/6 BIT PROGRAMABLE PRESCALER
8 BIT(14 BIT)PWM DAC/8 BIT INTERVAL TIMER
4
46 PG0/SI1
47 PG1/SO1
48 PG2/SCK1
49 PG3/INT1
50 PH0/DAC0
51 PH1/DAC1
52 PH2/SQR
53 PH3/HCNT

IC BLOCK DIAGRAM (Continued)

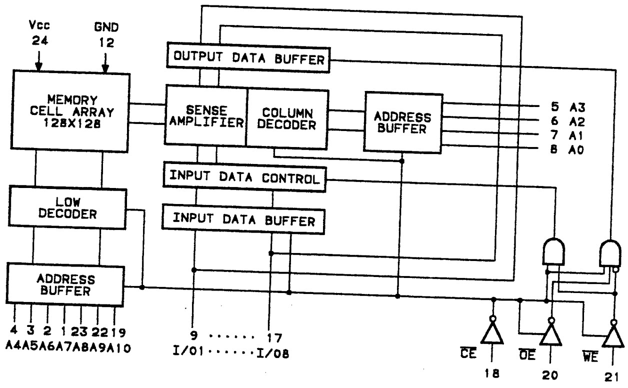
TA79L005P BLOCK DIAGRAM


GND
R1
R19
Q2
R5
R9
R11
Q6
Q9
R6
Q4
Q8
Q19
Q3
Q5
R10
R12
R17
R4
R7
R8
D7
Q10
Q11
Q1
Q12
R18
R20
OUTPUT
Q17
R2
D1
Q13
C1
Q18
Q15
Q16
R3
Q14
R13
R14
R15
R19
INPUT
1
2
3

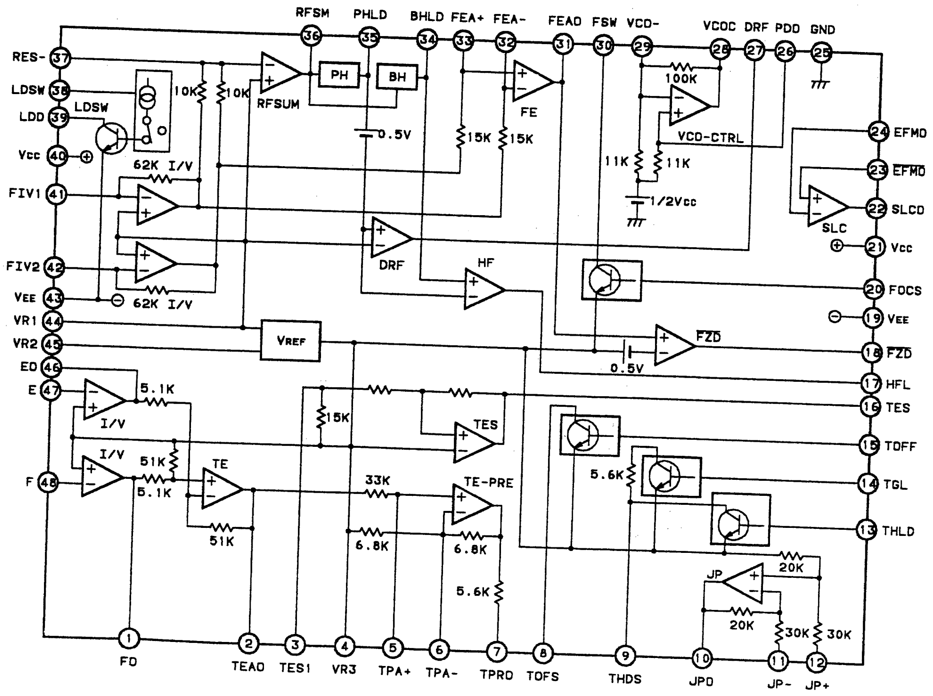
LC3517AM-15 BLOCK DIAGRAM


Vcc
24
GND
12
OUTPUT DATA BUFFER
MEMORY CELL ARRAY 128X128
SENSE AMPLIFIER
COLUMN DECODER
ADDRESS BUFFER
19 A10
6 A2
7 A1
8 A0
INPUT DATA CONTROL
LOW DECODER
INPUT DATA BUFFER
ADDRESS BUFFER
5 4 3 2 1 23 22
A3A4A5A6A7A8A9
9 ······ 17
I/O1······I/O8
CE
OE
WE
18
20
21

LC3517BML-15 BLOCK DIAGRAM

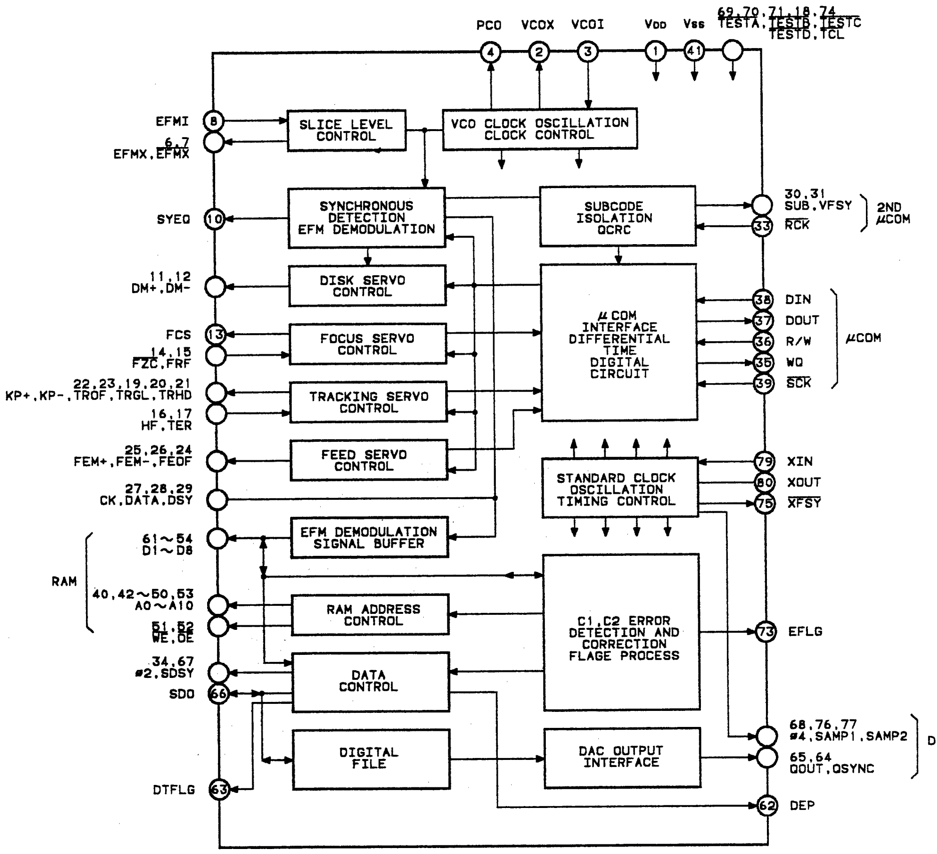

Vcc
24
GND
12
OUTPUT DATA BUFFER
MEMORY CELL ARRAY 128X128
SENSE AMPLIFIER
COLUMN DECODER
ADDRESS BUFFER
5 A3
6 A2
7 A1
8 A0
INPUT DATA CONTROL
LOW DECODER
INPUT DATA BUFFER
ADDRESS BUFFER
4 3 2 1 23 22 19
A4A5A6A7A8A9A10
9 ······ 17
I/O1······I/O8
CE
OE
WE
18
20
21

LA9200NM BLOCK DIAGRAM

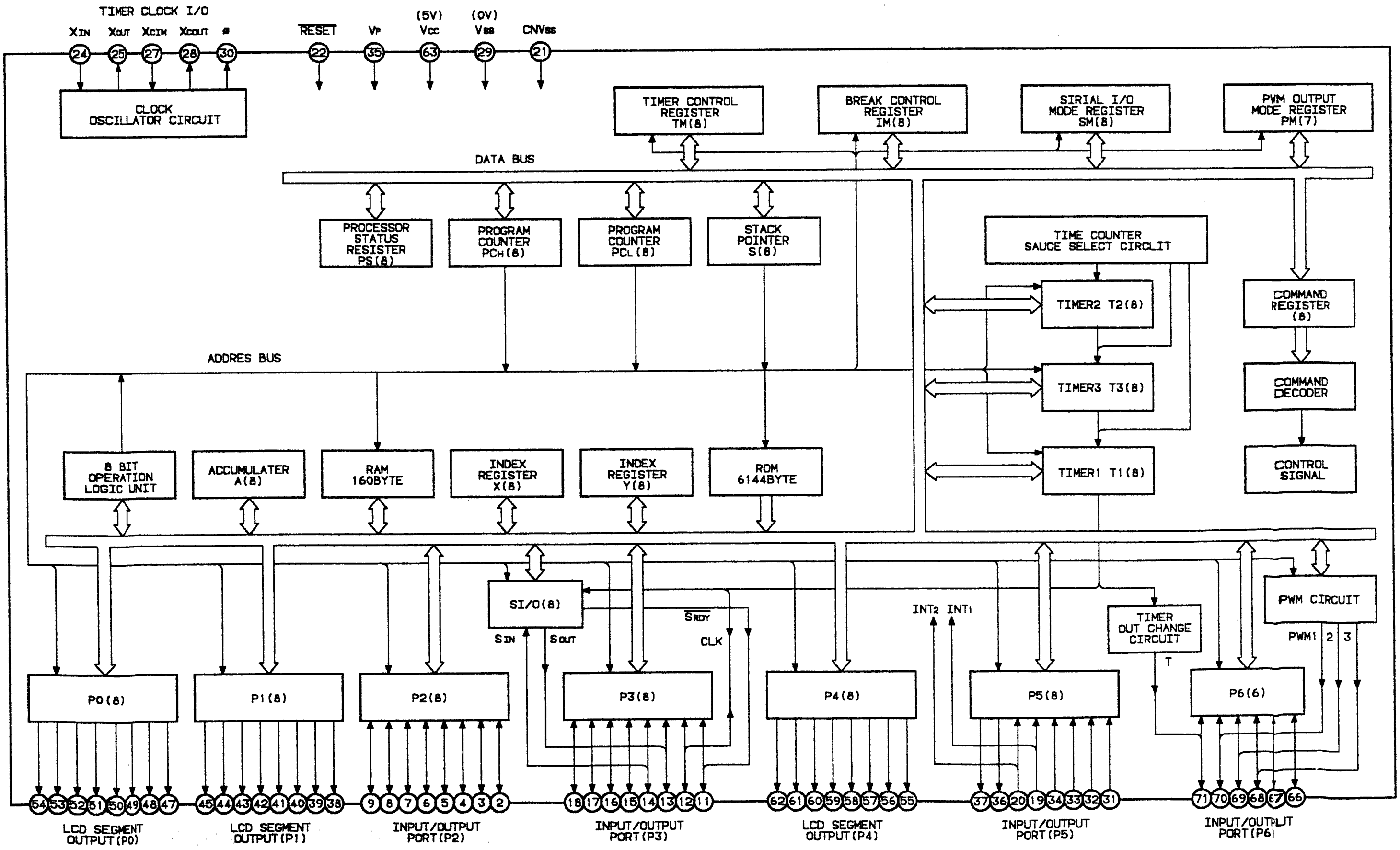

RFSM 36
PHLD 35
BHLD 34
FEA+ 33
FEA- 32
FEAD 31
FSW 30
VCO- 29
VCOC 28
DRF 27
PDO 26
GND 25
RES- 37
LDSW 38
LDD 39
Vcc 40
FIV1 41
FIV2 42
VEE 43
VR1 44
VR2 45
ED 46
E 47
F 48
LDSW
10K
10K
RFSUM
PH
BH
0.5V
15K
15K
FE
100K
VCO-CTRL
11K
11K
1/2Vcc
62K I/V
62K I/V
DRF
HF
VREF
FZD
0.5V
5.1K
I/V
I/V
51K
5.1K
TE
51K
15K
TES
33K
TE-PRE
6.8K
6.8K
5.6K
5.6K
JP
20K
20K
30K
30K
24 EFMO
23 EFMO
22 SLCO
SLC
21 Vcc
20 FOCS
19 VEE
18 FZD
17 HFL
16 TES
15 TOFF
14 TGL
13 THLD
1 FD
2 TEAO
3 TES1
4 VR3
5 TPA+
6 TPA-
7 TPRO
8 TOFS
9 THDS
10 JPD
11 JP-
12 JP+

IC BLOCK DIAGRAM (Continued)

YM3815-H BLOCK DIAGRAM

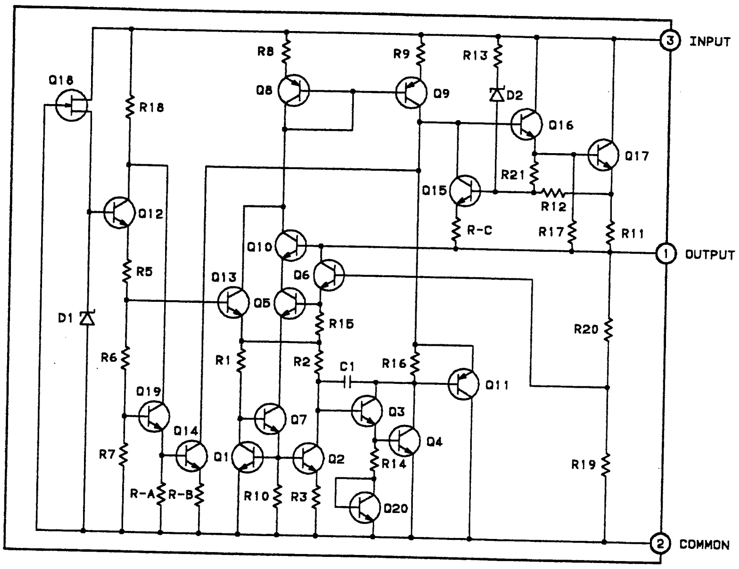

PCO
VCOX
VCOI
VDD
VSS
69,70,71,18,74
TESTA,TESTB,TESTC
TESTD,TCL
EFMI
6,7
EFMX,EFMX
SLICE LEVEL CONTROL
VCO CLOCK OSCILLATION CLOCK CONTROL
SYEQ
SYNCHRONOUS DETECTION EFM DEMODULATION
SUBCODE ISOLATION QCRC
30,31
SUB,VFSY
RCK
2ND µCOM
11,12
DM+,DM-
DISK SERVO CONTROL
FCS
14,15
FZC,FRF
FOCUS SERVO CONTROL
µCOM INTERFACE DIFFERENTIAL TIME DIGITAL CIRCUIT
DIN
DOUT
R/W
WQ
SCK
µCOM
22,23,19,20,21
KP+,KP-,TROF,TRGL,TRHD
16,17
HF,TER
TRACKING SERVO CONTROL
25,26,24
FEM+,FEM-,FEOF
FEED SERVO CONTROL
27,28,29
CK,DATA,DSY
STANDARD CLOCK OSCILLATION TIMING CONTROL
XIN
XOUT
XFSY
61~54
D1~D8
RAM
40,42~50,53
A0~A10
51,52
WE,OE
EFM DEMODULATION SIGNAL BUFFER
RAM ADDRESS CONTROL
C1,C2 ERROR DETECTION AND CORRECTION FLAGE PROCESS
EFLG
34,67
ø2,SDSY
SDO
DATA CONTROL
68,76,77
ø4,SAMP1,SAMP2
65,64
QOUT,QSYNC
DAC
DIGITAL FILE
DAC OUTPUT INTERFACE
DTFLG
DEP
1
2
3
4
8
10
13
33
35
36
37
38
39
41
62
63
66
73
75
79
80

M50754-156FP BLOCK DIAGRAM

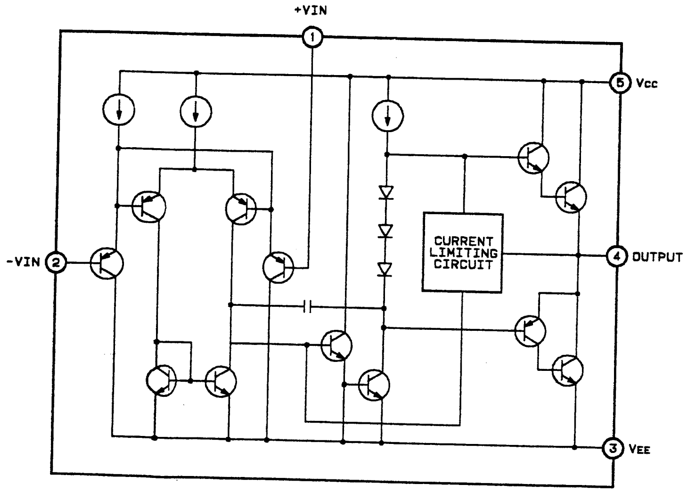

TIMER CLOCK I/O
XIN
XOUT
XCIN
XCOUT
ø
RESET
VP
(5V)
VCC
(0V)
VSS
CNVSS
CLOCK OSCILLATOR CIRCUIT
TIMER CONTROL REGISTER TM(8)
BREAK CONTROL REGISTER IM(8)
SERIAL I/O MODE REGISTER SM(8)
PWM OUTPUT MODE REGISTER PM(7)
DATA BUS
PROCESSOR STATUS RESISTER PS(8)
PROGRAM COUNTER PCH(8)
PROGRAM COUNTER PCL(8)
STACK POINTER S(8)
TIME COUNTER SAUCE SELECT CIRCUIT
TIMER2 T2(8)
TIMER3 T3(8)
TIMER1 T1(8)
COMMAND REGISTER (8)
COMMAND DECODER
CONTROL SIGNAL
ADDRES BUS
8 BIT OPERATION LOGIC UNIT
ACCUMULATER A(8)
RAM 160BYTE
INDEX REGISTER X(8)
INDEX REGISTER Y(8)
ROM 6144BYTE
SI/O(8)
SRDY
SIN
SOUT
CLK
INT2 INT1
TIMER OUT CHANGE CIRCUIT
T
PWM CIRCUIT
PWM1 2 3
P0(8)
P1(8)
P2(8)
P3(8)
P4(8)
P5(8)
P6(6)
24 25 27 28 30 22 35 63 29 21
54 53 52 51 50 49 48 47
45 44 43 42 41 40 39 38
9 8 7 6 5 4 3 2
18 17 16 15 14 13 12 11
62 61 60 59 58 57 56 55
37 36 20 19 34 33 32 31
71 70 69 68 67 66
LCD SEGMENT OUTPUT(P0)
LCD SEGMENT OUTPUT(P1)
INPUT/OUTPUT PORT(P2)
INPUT/OUTPUT PORT(P3)
LCD SEGMENT OUTPUT(P4)
INPUT/OUTPUT PORT(P5)
INPUT/OUTPUT PORT(P6)

IC BLOCK DIAGRAM (Continued)

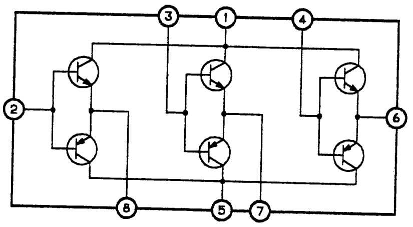
NJM78M05FA BLOCK DIAGRAM


③ INPUT
① OUTPUT
② COMMON
Q18
R18
R8
Q8
R9
Q9
R13
D2
Q16
Q17
R21
R12
Q15
R-C
R17
R11
Q12
R5
Q10
Q13
Q6
Q5
D1
R15
R20
R6
R1
R2
C1
R16
Q11
Q19
Q3
Q14
Q7
Q4
R7
Q1
Q2
R14
R19
R-A
R-B
R10
R3
Q20

LA6501-LR BLOCK DIAGRAM


+VIN
①
⑤ Vcc
-VIN ②
④ OUTPUT
CURRENT LIMITING CIRCUIT
③ VEE

STA341M BLOCK DIAGRAM



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